

2012

RESEARCH REPORT



Western Health

OUR VISION

Together, caring for the West - our patients, staff, community and environment.

OUR PURPOSE

Working collaboratively to provide quality health and well-being services for the people of the West.

OUR VALUES

Compassion - consistently acting with empathy and integrity

Accountability - empowering our staff to serve our community

Respect - for the rights, beliefs and choice of every individual

Excellence - inspiring and motivating, innovation and achievement

Safety - working in an open, honest and safe environment.

OUR PRIORITIES

Safe and effective patient care

People and culture

Community and partnerships

Research and learning

Self-sufficiency and sustainability

Acknowledgement of traditional owners

Western Health respectfully acknowledges the traditional owners of the land on which its sites stand as the Boon Wurrung and the Wurundjeri people of the greater Kulin Nation.

Cover: The Sunshine Hospital Radiation Therapy Centre is a partnership between Western Health and Peter MacCallum

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002 Foreword

Western Health experienced an exciting and successful year of research during 2012. This edition of our annual Research Report highlights the outstanding research efforts of the staff at Western Health during 2012. The major highlights were 273 published journal articles, 180 research projects approved, and over \$24M in research grant funding. All of these numbers represent an increase on the previous year, reflecting the ongoing growth of the research effort at Western Health.

Research Week at Western Health is a major annual event in which we celebrate the achievements of our Western Health research community. While this event is designed to showcase the depth and breadth of research done here at Western Health, it is also an important forum for bringing people together to talk about research ideas, projects, collaborations and opportunities across a range of academic and clinical disciplines. Research Week in 2012 had a number of distinguished key note speakers, and we were extremely fortunate to have the Governor of Victoria, His Excellency, the Honourable Alex Chernov AC QC, formally open the proceedings.

Six major prizes were awarded in different categories to recognise quality in research at Western Health. We would like to take this opportunity to thank the sponsors of these prizes. Without their generosity and support we would not be able to present these awards. We congratulate all the researchers at Western Health whose achievements and contributions were celebrated during Research Week. We would also like to thank the hard work and dedication of the members of the Western Health Low Risk Ethics Panel, whose tireless efforts continue to support and sustain the research effort at Western Health.

We look forward to ongoing development and expansion of clinically-focused, patient-centred research at Western Health. The Western Centre for Health Research and Education was established in 2011 and is now delivering real benefits in research collaboration. The Centre houses the Australian Institute for Musculoskeletal Science (AIMSS) which focuses on health issues of significant importance to the Western Health community. With the hard work, commitment and enthusiasm of our staff, Western Health's research efforts will continue to grow. While we look towards a bright research future, we celebrate in this Report the achievements of 2012.



A handwritten signature in black ink, appearing to read 'Alex Cockram'.

Associate Professor Alex Cockram
Chief Executive



A handwritten signature in black ink, appearing to read 'David Newman'.

Dr David Newman
Director, Office for Research

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Research Highlights 2012

183

Seminar and Conference Presentations

\$2.08M

Income from Commercially Sponsored Clinical Trials

\$24.56M

Awarded or held for Research Grants during 2012*

* Total awarded for the duration of the grants to our researchers and their collaborators

273

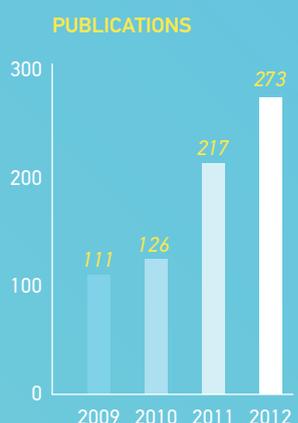
Published Journal Articles

180

Research Projects Approved

8

Published Book Chapters



Research Support 2012

13,620

paper medical records supplied to researchers by Health Information Services

900

unique email queries received and replied to by the Office for Research

186

literature searches performed by Library Services to support research development

148

research consultation meetings were held by the Office for Research

48

protocols reviewed and 1650 dispensations by Pharmacy for clinical trials

19

research seminars were organised by the Office for Research

180

research projects approved by the Low Risk Ethics Panel and Office for Research

Research Directorate

WESTERN HEALTH RESEARCH ADVISORY COMMITTEE MEMBERSHIP

Dr Mark Garwood

Executive Director Medical Services

Dr David Newman

Director, Office for Research (Chair)

Dr Tam Nguyen

Manager, Office for Research (Secretary)

Ms Wendy Calder

Executive Director, Nursing & Midwifery

Professor Steven Chan

Professor of Surgery

Professor Peter Ebeling

Professor of Medicine; Assistant Dean
Chair NorthWest Academic Centre
(University of Melbourne)

Professor Michael Green

Director of Cancer Services

Professor Edward Janus

Director, General Medicine

Mr Ian Higgins

Director, Western Health Foundation
(until October 2012)

Dr Harin Karunajeewa

Director, Clinical Research Division
of Medicine

Dr Debra Kerr

Senior Lecturer, School of Nursing
Victoria University

A/Professor Ruth McNair

Director, General Practice and Primary
Health Care Academic Centre Node
University of Melbourne

Dr Craig Nelson

Director, Department of Nephrology

Mr Silvio Pontonio

Executive Director, Community Integration
and Partnership

Dr John Violet

Director, Sunshine Hospital Radiation
Therapy Centre

OFFICE FOR RESEARCH STAFF

Dr David Newman

Director, Office for Research

Dr Tam Nguyen

Manager, Office for Research

Mrs Kerrie Russell

Ethics Administration Assistant

Ms Virginia Ma

Research Governance Officer
(appointed December 2012)

Ms Fiona Lobo

Office for Research Intern
(Victoria University student)

Ms Phoebe Blank

Office for Research Intern
(Deakin University student)

Ms Christine Mizrahi

Office for Research Volunteer

Ms Lauren Scofield

Office for Research Volunteer

WESTERN HEALTH LOW RISK ETHICS PANEL MEMBERSHIP

CHAIRPERSON

Tissa Wijeratne, MBBS (Hons) FRACP FAHA

Consultant Neurologist

DEPUTY CHAIRPERSON

Debra Kerr, RN MBL PhD Senior Lecturer,

Faculty of Nursing, Victoria University

LAWYER

Paula Shelton BA LLB Practice Group

Leader-Medical Law Group Slater & Gordon
Lawyers

REVIEW MEMBERS

Angela Marsiglio MBBS BMedSci

DRANZCOG Anaesthetic Registrar

Angela Mellerick RN Nurse Unit Manager

Day Oncology

Anne Marie Southcott MBBS FRACP

Director, Respiratory & Sleep Disorders
Medicine

Elizabeth Hessian MBBS FANZCA

Consultant Anaesthetist

Elizabeth Skinner PhD BPhy

Physiotherapist Intensive Care Unit

Emily Incedon BBSc (Hon), DPsych

(Clinical), Assoc MAPS Clinical Health
Psychologist

Harin Karunajeewa MBBS FRACP PhD

Director, Clinical Research – Division of
Medicine

Jenny Schwarz MBBS FRACP GDipEd GDip

Pall Med Clinical Associate Professor in
Geriatric Medicine

Julian Choi MD FRACS Consultant Surgeon

Keri Chater PhD M.Nurs BSocSc RN Clinical

Coordinator, Westgate Aged Care Facility

Lei Ching Yeoh B.Pharm Clinical Trials

Manager

Lynette Reid-Price MCLinEpi MAppMgt

(Hlth) BBiomedSc Manager Medical Specialty
Diagnostics

Sathyajith Velandy Koottayi MBBS MD

FJFICM Intensivist

Terence McCann PhD MA RMN RGN DipNurs

(Lon.)RNT, RCNT Professor of Nursing,
Faculty of Nursing (VU)

MANAGER

Tam Nguyen PhD BSc/BE (Biomed) FRSPH

Manager, Office for Research

005 Research Week Awards

Western Health's annual Research Week was held from 12 to 16 November 2012, giving an exciting overview of the extent and variety of research undertaken by Western Health researchers, along with its two main partners, The University of Melbourne and Victoria University. The program was developed by the Office for Research with support and guidance from the Research Advisory Committee. Many of the sessions were well attended, and there were good audience numbers for the major key note addresses. Over 450 abstract booklets were handed out and over 600 attendees registered for sessions during Research Week.

On Monday 16 November, the Governor of Victoria, The Honourable Alex Chernov AC QC officially launched Western Health Research Week. Professor Jim McCluskey, Deputy Vice-Chancellor (Research) from the University of Melbourne in his opening keynote address discussed the University's strategic framework for the next 10-15 years: the Grand Challenges strategy. The Grand Challenges philosophy aims to be embedded across the University, particularly through its precincts and research partnerships strategies, including Western Health.

The Week featured a number of distinguished keynote addresses, including international speaker, Professor Michael Kimlin, Director, NHMRC Centre for Research Excellence in Sun & Health and Director, AusSun Research Lab, School of Public Health & Social Work, Queensland University of Technology, and Professor Leonard Berlin, Professor of Radiology, Rush Medical College (US).

The research capacity building panel discussion featured Professor Danny Liew from the Centre for Clinical Epidemiology, Biostatistics and Health Services Research (Melbourne Health & The University of Melbourne) and A/Professor Terry Haines from Allied Health Research Unit (Southern Health & Monash University) provided an excellent discussion on motivators, enablers and obstacles to building research capacity. Our medical and surgical registrars, allied

health and nursing staff presented their research projects throughout the week.

A Public Lecture on Wednesday 14 November presented by Professor Rob Moodie highlighted some of the major causes of illness globally and the social, cultural and economic drivers behind these patterns of illness. Professor Moodie compared these to the local experience of migrants and refugees in the Western suburbs of Melbourne and discussed some of the key challenges to finding global and local solutions to these changing patterns of illness. He discussed a new systems theory related to prevention, where each part of the overall health care system might be more effective in keeping patients at the appropriate level of care, and how clinicians play an absolutely crucial role in this, at all levels.

Research Week continues to grow, which reinforces not only the importance of research but also the strong involvement that Western Health staff have in conducting quality research across a range of disciplines. This year a record 120 abstracts were submitted - a remarkable increase on last year's 80 and the previous year's 20, highlighting the vast amount of high quality research occurring at Western Health. Research Week was supported by six major prizes and two runner-up prizes, of \$1500 and \$500 each respectively, provided by sponsors, in order to encourage research activities in several disciplines at Western Health. Congratulations to the following prize winners:

- Neville Yeomans Prize for the Best Medical Research Presentation (Registrars & Advanced Trainees), sponsored by Pfizer:

Dr Hui Liew from Nephrology for research into: *"EMAN"Anaemia: An Open Labelled Randomised Controlled Trial Of The Electronic Management Of Anaemia In Chronic Kidney*

- Kendall Francis Prize for Best Surgical Registrar Research presentation sponsored by Covidien:
Dr Manny Cao, Surgical Registrar for research into: *Carbon dioxide insufflation colonoscopy decreases time-to-caecum and post-procedural discomfort: a randomised control trial*
- Best Allied Health Research presentation sponsored by Alcidion:
Sarah Pitt from Nutrition for research into: *Malnutrition in Western Health haemodialysis patients*
- Best Nursing Research presentation sponsored by Health Super:
Marieta Pring for research into: *Implementation of Strategies to Increase the Exclusively Breastfeeding Rates of babies born to women with Gestational Diabetes*
- Best Published Research paper is a new award this year and is sponsored by the Western Health Foundation:
Dr Claudia Gagnon from Endocrinology for the research into: *Serum 25-Hydroxyvitamin D, Calcium Intake, and the risk of Type 2 Diabetes after 5 years*
- Best Research Poster Prize, sponsored by Police Credit Union:
Dr David Krieser from Paediatric Emergency for research into: *A Randomised Trial Comparing Nasogastric with Intravenous Hydration in Infants with Bronchiolitis*
- The runner up for Best Research poster, sponsored by Dorevitch:
Dr Hui-Li Wong from Oncology for research into: *Impact of Diabetes on Clinicopathologic and Genetic Features of Colorectal Cancer Formation*
- Best Research Poster (Research Higher Degree Student) Sponsored by GE:
Belal Khan for research into: *Associations Of Long-Term Dietary Calcium Intake With Fractures, Cardiovascular Events And Aortic Calcification In A Prospective Cohort Study*

Allied Health

Care Coordination

Research undertaken in Care Coordination in 2012 relates to the following areas:

- Understanding client experiences and how we integrate client feedback into service/workforce redesign
- Use of routinely collected service data to evaluate the effectiveness of care coordination services
- Workforce innovation and reform

Care Coordination Services are focused on meeting the needs and improving the experiences of our clients with chronic and complex needs. Through our involvement in workforce innovation we hope to contribute to the national workforce reform evidence base. We anticipate that these areas of research will continue to be relevant in 2013.

OUR RESEARCH

Evaluating Interprofessional Care in Sub-acute Teams

Kate Cranwell

Care Coordination Services Reduce Hospital Demand at Western Health

Abby Bean, Peter Roe

An Exploratory Study of Care Coordination Work Practice and Activity

Kate Cranwell, Prue Deckert, Abby Bean

Collaborators: Associate Professor Liza Heslop (Victoria University)

This study aims to map and analyse workflow processes and functions of care coordination staff using an activity log data collection tool. A series of focus groups with staff will ascertain viewpoints, understandings and values of the care coordination role, and opportunities for workforce reform. This study will provide the necessary data to inform/support improving the balance of specialist and generalist roles within this workforce. It will enable establishment of roles with expanded scope of practice that may lead to a more efficient 'fit for purpose' workforce. The study gathers information on the gaps and barriers which may limit optimal integration of service delivery with related services and

their staff and contributes to development of standards, tools and protocols to support the care coordination service.

Care Coordination Experienced Based Co-Design Project

Kate Cranwell, Jacinta Roberton, Abby Bean, Mark Murray, Rebecca Power, Assunta Morrone, Trish Downes, Helen Gray, Michelle Pitcaithly

Collaborators: A/Prof Liza Heslop (Victoria University), Dr John Bamburg (Western Region Health Centre)

The study aims to seek feedback about the patient and carer experience of Care Coordination service provision and utilise information to develop and improve how care coordination services are delivered, inform and educate staff.

There is increasing evidence from effectiveness studies that consumer and community participation can improve health outcomes, lead to more responsive care, facilitate people's involvement in treatment decisions and improve quality and safety. In addition to better health outcomes consumer and community participation can help reduce risk, hold professionals accountable, encourage clinical accountability, identify workforce issues and foster more responsive and equitable services.

10 Years On.... Exploring Virtual Teamwork in HARP

Kate Cranwell, Kerryn Hornby, Jenelle McHugh

This study aims to evaluate the model of sharing staff across agencies within the HARP virtual team. It determines key enablers and barriers which influence the effectiveness of the model and contribute to job satisfaction for workforce within the HARP virtual team. The project will implement and evaluate change which supports improved integration in workforce for those working within complex aged care. Improved understanding of the barriers and enablers of working within the HARP virtual team will help to support current working relationships between WH and community

HARP service providers; and provides a platform from which to implement strategies to support improved workforce integration. This knowledge will contribute to broader discussions in supporting workforce integration and innovation in complex aged care.

OUR RESEARCHERS

Rebecca Power: Group Manager, Care Coordination

Helen Gray: Acting Manager, Hospital Admission at Risk Program

Kate Cranwell: Care Co-ordination Workforce Innovation and Integration Project Lead

Abby Bean: Information Management Lead Health Independence Programs

Jacinta Roberton: Aged Care Assessment Service Senior Clinician

Mark Murray: Immediate Response Service Team Leader

Prue Deckert: Care Coordination Workforce Integration and Innovation Project Manager

Peter Roe: Data Officer, Care Coordination

Trish Downes: Pharmacist, Care Coordination

Michelle Pitcaithly: Care Coordination - Drug and Alcohol Specialist

PROJECT GRANT

Rebecca Power "Care Coordination Workforce Integration and Innovation Project - Building Regional Capacity in the West" Awarding Body: Health Workforce Australia: \$450,000 (July 2012- Jan 2014)

Mark Murray "Improving Discharge Communication to Aged Care Facilities" Mavis Mitchell Award, Western Health: \$5,000

Western Health's Physiotherapy Department has a large number of staff actively involved in research.



Care Coordination: solving the round peg, square hole quandary

In 2012, Western Health's Care Coordination Service was successful in its application for funding from Health Workforce Australia.

Led by Group Manager of Care Coordination, Rebecca Power, *"The Care Coordination Workforce Integration and Innovation Project - Building Regional Capacity in the West"* received an impressive \$450,000 for the period July 2012 to January 2014.

"Care Coordination is a fairly new profession, perhaps only ten or so years old," Rebecca said.

"It's a group of services that looks at providing care to complex clients and focuses more along the lines of generalist care.

"Recruiting used to be difficult because people didn't understand what a Care Coordinator was or did. We needed a group of people who were comfortable with complexity, able to do really good generalist work and were committed to following the patient through their journey.

"Our clients have multiple chronic diseases, such as diabetes, pulmonary, cardiac, plus usually, psycho-social factors. Sometimes mental health or drug and alcohol issues too. So a whole lot of things which make it difficult for them to fit neatly into other services.

"Until recently there were a whole lot of round pegs and we'd made nothing but square holes," Rebecca adds.

"You need Care Coordinators to re-scope the holes and find the services these clients need."

When the opportunity arose, Rebecca submitted an application to Health Workforce Australia for funding with a view to getting some robustness behind the Care Coordination service, and really putting it at the forefront of Western Health's delivery of patient care.

Several streams of work are taking place under the over-arching project, with a view to meeting a number of objectives, including:

- developing and implementing a competency framework targeting care coordination roles;
- reviewing the current role and trialling and evaluating non traditional workforce models;
- actively integrating workforce practices to facilitate coordination of care;
- providing experience and classroom based learning opportunities to support workforce skills;
- implementing an experience based co-design framework; and
- contributing to the current evidence base for workforce redesign and complex care roles.

"This research is around building our evidence base," said Kate Cranwell, Care Coordination Workforce Innovation and Integration Project Lead.

"We're evaluating throughout, talking to staff, monitoring referral numbers, Emergency Department presentations, productivity and efficiency, and whether there has been a shift in the types of tasks that staff are doing. It's about building sustainability for our Care Coordination workforce."

Western Health is extremely grateful to Health Workforce Australia for its support and the allocation of funding which has made this research possible.





Allied Health (cont.)

Nutrition

The Nutrition Department has continued a major research focus within the area of malnutrition. This strongly links with clinical service provision, where improved identification and management of malnutrition across the organisation has continued to be a high priority.

During 2012, the Department commenced or continued an increased number of studies with a malnutrition focus. There have been at least six ongoing research projects in 2012, with one major study receiving external funding from the Department of Health. This project, *'Investigating Practices Relating to Malnutrition in Victorian Cancer Services'* collaborated with 15 other health services.

Another major ongoing study "Malnutrition in Western Health Dialysis Patients" identified 61% of all Haemodialysis patients had mild-moderate malnutrition initially, and fell to 30% and then 15% after interventions from the renal dieticians and other staff from 2010-2012. This project lead by Sarah Pitt and Alison Qvist, Senior Renal Dieticians was awarded 'Best Allied Health Research Presentation Prize 2012' in Western Health Research Week 2012.

A number of our ongoing and future research projects will be in collaboration with Deakin University, Victoria University and the Department of Health. The findings from these projects are incorporated into innovation and improvement in Nutrition service provision, within Western Health.

OUR RESEARCH - NUTRITION

Audit on the Use of "Nil By Mouth" and "Clear Fluid" Diet Codes on Two Surgical Wards at Western Hospital

Kim Dennis and Vanessa Carter

Investigation of the Impact of Ward Mealtime Environment in Achieving Adequate Oral Intake

Rachael Evans, Allison Lauder, Hollie Bevans (Senior Dieticians), Raquel Baptista, Alex Hoare, Jemima Hill, Vanessa Korfiatis (Deakin University Masters students)

Collaborators: Deakin University

Audit on the Outcomes of Patients Commenced on Enteral Feeds in the Stroke Unit at Western Hospital over a 12 Month Period

Allison Lauder, Rachael Evans

Audit of Patients Commenced on Total Parenteral Nutrition Across All Wards at Western Hospital Over a 6 Month Period

Kim Dennis

Gestational Diabetes Modules

Mridula Bandyopadhyay and Mary Carolan (Victoria University), Vicky Saunders (Dietetics), Jacqui Young (Dietetics), Cheryl Steele (Diabetes Educator)

Collaborators: Victoria University

Investigating Practices Relating to Malnutrition in Victorian Cancer

Hollie Bevans, Heather Jordan, Kathryn Pierce Collaborator: Kathryn Marshall (Department of Health)

In this project, patients receiving cancer treatment across 15 Victorian hospitals were screened for malnutrition using the MST and PGSGA tools. 1693 patients were screened for malnutrition, with 118 attending Western Health for cancer treatment. The overall prevalence of malnutrition in Victorian cancer patients was 31% with the higher incidence of 35% amongst Western Health patients. Results indicate that malnutrition has a significant relationship with outcomes, including 30-day mortality, complications, unplanned admissions and length of hospitalisation. Malnutrition is associated with reduced treatment tolerance, reduced quality of life, increased complications and higher mortality rates. Malnutrition can increase the length of hospital stay and result in higher health-care costs.

Malnutrition in Western Health Dialysis Patients

Sarah Pitt, Alison Qvist, Giang Nguyen, Kathryn Pierce

All Western Health Dialysis patients were assessed three times, twelve months apart, using a validated nutrition screening tool (Subjective Global Assessment- SGA), and biochemistry, cause of renal failure; cultural background and dialysis duration were also noted. 39% of patients had mild-moderate malnutrition initially, and fell to 35% and then 15% after interventions from the renal dieticians and other staff over three years. Malnutrition is evident in 23-73% of Haemodialysis patients. Malnutrition increases morbidity and mortality, but also reduces quality of life and increases hospital stay.

Volunteer Meal Assistance Program

Hollie Bevans, Rachael Evans, Kathryn Pierce, Jeff Garner, Kate Mangion, Wendy Watson, Michael Burns

During 2011/12 over 300 patients were assisted at lunch meal times by trained volunteers. This assistance ranged from set-up, prompting and opening food packages to full feeding.

The provision of individual meal assistance by specially-trained volunteers to Western Health patients resulted in an improved oral intake and increased satisfaction by these patients at lunch time.

Patients eating less during their stay in hospital can increase their risk of developing malnutrition which can increase complication, infections, functional decline, and overall length of stay in hospital.

Audit on the Use of “Nil By Mouth” and “Clear Fluid” Diet Codes on Two Surgical Wards at Western Hospital

Kim Dennis and Vanessa Carter

An observational audit of 43 patients was performed to determine the reason, prevalence and duration of Nil by Mouth (NBM) or Clear Fluids (CF) diet code usage on two gastrointestinal surgical wards at Western Hospital (WH) over a 5-day period. Patients at WH are experiencing prolonged fasting for anaesthesia. The current practice of fasting all patients from midnight appears to be a significant contributing factor.

Despite the lack of evidence for the use of CF diets after surgery, WH surgical patients are still being allocated these diet codes. Prolonged fasting and the use of low-energy clear fluid (CF) diets can exacerbate existing malnutrition or place patients at risk of developing malnutrition.

“Dining with Friends” Comparison of the Protein and Energy Intake of Hospital Elderly Between the Dining Room and at their Bedside

Aranka Nenov, Karon Markovski and Aurora Ottaway

This study found that 34 out of 52 patients (61%) favoured eating their meal in the dining room and consumption of a higher proportion of protein (29g in dining room compared with 24g at the bedside) and energy (2321Kj in the dining room compared with 2050Kj at the bedside) was observed.

The study also found of the 21 patients with a BMI less than 22, 15 (71%) ate better in the dining room, of the 31 patients identified with significant cognitive impairment 24 (71%) ate better in the dining room and of the 29 patients who were identified as being at moderate and high risk of malnutrition 20 (68%) ate better in the dining room. A dining room environment in hospital can increase opportunities to enjoy the social aspect of meal times, increases food intake which potentially lead to weight gain and improvement in nutritional status and rehabilitation.

OUR RESEARCHERS

Kathryn Pierce: Manager, Nutrition

Sarah Pitt: Senior Renal Dietician

Alison Qvist: Senior Renal Dietician

Kim Dennis: Senior Dietician

Hollie Bevans: Senior Radiotherapy/Oncology Dietician

Aranka Nenov: Senior Dietician

Allison Lauder: Senior Dietician

Rachael Evans: Senior Dietician

Vanessa Carter: Senior Dietician

Vicky Saunders: Senior Dietician

Heather Jordan: Oncology/Surgical Dietician

Giang Nguyen: Renal Dietician

Karon Markovski: Dietician

Aurora Ottaway: Dietician

Jacqui Young: Dietician

OUR RESEARCH STUDENTS

Raquel Baptista: Masters of Nutrition and Dietetics, Deakin University

Alex Hoare: Masters of Nutrition and Dietetics, Deakin University

Jemima Hill: Masters of Nutrition and Dietetics, Deakin University

Vanessa Korfiatis: Masters of Nutrition and Dietetics, Deakin University

OUR AWARDS

Best Allied Health Research Presentation Prize Western Health 2012

Recipient(s): Sarah Pitt, Alison Qvist, Giang Nguyen, Kathryn Pierce
Malnutrition in Western Health Dialysis Patients
Awarding Body: Western Health
Total Funding Amount: \$1,500

Allied Health Research Presentation Prize - Highly Recommended Western Health 2012

Recipient(s): Hollie Bevans, Heather Jordan, Kathryn Pierce
Malnutrition in Victorian Cancer Services

Allied Health (cont.)

Occupational Therapy

The Occupational Therapy (OT Department) is committed to providing an excellent occupation focused, evidence based service to clients of Western Health. Contributing to this is an active quality committee which provides leadership and support to staff undertaking quality and research activities.

The OT Department completed a large number of quality and research projects in 2012, in addition to reviewing and evaluating previously established Therapist led clinics in plastics and hand therapy. To share this knowledge with the wider OT profession and promote the strong quality and research focus of the OT Department at Western Health, a total of nine conference presentations were delivered in 2012, at both a state and national level.

2012 also saw a focus on an interdisciplinary approach to quality and research within Allied Health. As part of this process, the Grade 4 Occupational Therapist and Physiotherapist, in conjunction with senior staff from other Allied Health disciplines, led a project to promote consistency of practice and processes for Allied Health staff completing quality activities. This included the development of an Allied Health wide quality learning package and review of quality tools used within Allied Health to ensure consistency between disciplines.

OUR RESEARCH – OCCUPATIONAL THERAPY

A Narrative Study on OTs Preparedness to Move Up a Grade Level - "Climbing the Career Ladder - What I Wish I'd Known First"

Helen Nelson, Susan Giles, Heather McInnes OT

This project investigates whether there are common themes/ issues for Occupational Therapists (OTs) in preparing to move between grade levels. This project assists us to identify strategies to prepare staff for the transition between grade levels, leading to a smoother transition and seamless service provision.

Management of Oncology Symptoms Affecting Occupational Performance: An Evidence Based Practice Project

Sarah Shipp, Judi Bolton, Gemma O'Brien (OT)

The aim of this project is to investigate if current Occupational Therapy practice at Western Health addresses the issues that oncology symptoms such as pain, fatigue and sleep deprivation negatively impact on occupational performance. Occupational Therapy services for oncology patients at Western Health will address symptoms that impact negatively on occupational performance in line with best practice within an acute setting.

To Determine the Proportion of Primary-Aged School Children Referred to a Learning Difficulties Clinic who meet the DSM IV Diagnostic Criteria for Developmental Coordination Disorder (DCD)

Leanne Chapman, Renee Debrincat, Dr Renee Testa (Clinical Neuropsychologist) OT/CAHS

The aim of this project is to determine the proportion of primary-aged children referred to a learning difficulties clinic who meet the DSM-IV diagnostic criteria for Developmental Coordination Disorder (DCD).

This project will assist us with improving therapist knowledge and confidence to identify children with DCD within a learning difficulties population of primary age children. This will also assist us to identify more effective therapy approaches used for children with DCD and provide a better understanding and support for the child's difficulties within the home and school environment.



Occupational therapists play a key role in preparing patients to return home.

“Transprofessional Practice and Occupational Therapy”

Heather McInness OT

The aim of this project is to investigate the current knowledge level, opinions and attitudes within Occupational Therapy in regards to the evolution of transprofessional roles, and to identify the risks and opportunities (if any) to the Occupational Therapy profession in regards to transprofessional roles.

The results of this project will be used to assist occupational therapists who are developing or working within transprofessional roles. The results are intended to contribute to the creation of a profession wide knowledge base in regards to transprofessional roles and occupational therapy.

Evaluation of the Assessment and Diagnosis Process of Autism Spectrum Disorder at Western Health

Sally Butzkueven (SP), Renee Debrincat (OT) SP/OT/ CAHS

The aim of this project is to make recommendations to improve the service provided to families whose children have been referred to the Autism Assessment Clinic at Western Health.

Data collection has been completed and data is currently being analysed to identify priorities for service development and improvement. Western Health (Sunshine Hospital) is a key provider for autism assessments in the West. Autism assessments comprise a significant component of the work conducted by the Children’s Allied Health Service (CAHS) team. Outcomes from this project will ensure that the quality of the assessments provided by Western Health are of the highest possible standard with respect to the accuracy of diagnosis; patient satisfaction; ensuring safe and effective patient care and clear and concise communication.

OUR RESEARCHERS

Susan Giles: Manager: Occupational Therapy

Helen Nelson: Grade 4 Occupational Therapist

Heather McInnes: Grade 3 Occupational Therapist

Karen Kessner: Grade 3 Occupational Therapist

Sarah Shipp: Grade 2 Occupational Therapist

Judi Bolton: Grade 2 Occupational Therapist

Renee Debrincat: Grade 2 Occupational Therapist

Leanne Chapman: Grade 2 Occupational Therapist

Gemma O’Brien: Grade 1 Occupational Therapist.

OUR AWARDS

Amanda McAliece “Study Scholarship”
Victorian Stroke Care Network Scholarship
\$2,000

Allied Health (cont.)

Physiotherapy

Research in the Physiotherapy Department has progressed significantly in 2012 with the development of formal collaborations with Victoria University and The University of Melbourne through the Australian Institute of Musculoskeletal Science in the form of successful seeding grant applications which aim to form the foundation for future NHMRC Project Grants. Our established research projects in the areas of distal radius fracture management, aquatic physiotherapy programs, stroke management and education have been joined by developing initiatives in falls, sarcopenia, mobilisation in critical care and simulation. This research breadth of 24 projects encapsulates the clinical service provision depth of the physiotherapy services with the majority of our projects being led and conducted by clinical leaders in their respective areas.

The Physiotherapy Department aspires to become a national leader in the conduct of clinical research aligned with the strategic priorities for Western Health and our broader community and focusing on the translation of evidence into clinical practice. We were involved in several competitive seeding grants from bodies such as the Physiotherapy Research Foundation, AIMSS and the Pat Cosh Trust. We have several postgraduate students involved in performing our research and hope to build our profile in research within Melbourne over the next five years. In addition, we aim to develop research programs in other strategic areas such as the management of chronic disease and the use of new technologies to align with National Research Priorities.

Another priority for the Physiotherapy Department is improving the dissemination of research findings. In 2012, Physiotherapy staff were successful in having four peer-reviewed publications with four national conference presentations and seven local presentations at Western Health Research Week. We hope to build on these numbers in the coming years and expand our research collaborations both locally and nationally as a first step.

A Very Early Rehab Project (AVERT)

Kirsty Kat, Libby Talbot, Brooke Lee, Natalie Teasdale

Collaborators: National Stroke Research Institute

Defining the Benefits of Exercise in Interstitial Lung Disease: A Multi-Centre Randomised Controlled Trial

Kathryn Barker, Claire Boote

Collaborators: Austin Hospital/Victoria University (Leona Dowman), The Alfred Hospital (A/Prof Anne Holland)

Does Immersive Simulation Training Improve Student Supervision Skills of Physiotherapy Clinical Educators?

Clare Holdsworth, A/Prof Clare Delany, Dr Lizzie Skinner

Collaborators: The University of Melbourne

A Specialised Rehabilitation to Optimise Recovery Following Knee Replacement Surgery

Dr Pazit Levinger, Simon Talbot, Cam Fary, Kane Rodda, Darren Fraser, Jackson Boyd, Prof Rezaul Begg, Prof Mark Taylor, Dr Dominic Thewlis, Prof Nick Taylor, Dr Lizzie Skinner.

Collaborators: Victoria University, The University of Melbourne, LaTrobe University, University of SA, Flinders University (SA)

Minimum Standards of Practice for Physiotherapists Working in Intensive Care: A Delphi Study

Dr Lizzie Skinner, Dr Peter Thomas, A/Prof Shane Patman, Dr Julie Reeve

Collaborators: The University of Queensland, Auckland University of Technology, University of Notre Dame (Western Australia)

The Associations between Characteristics of Sarcopenia, Vitamin D and Falls in Community-Dwelling Older Adults

Dr David Scott, Dr Pazit Levinger, Dr Lizzie Skinner

Collaborators: AIMSS

Improving Outcomes for the Upper Limb in Severe Stroke: The Efficacy of Rehabilitation Interventions Based on the Bobath Concept – A Pilot Study

Jane Tillyard, Dr Kim Brock

Collaborators: St. Vincent's Hospital

A Novel Web-Support Intervention for Patients Following Anterior Cruciate Ligament Reconstruction

Dr Pazit Levinger, Darren Fraser, Becky Pile, Simon Talbot

Collaborators: AIMSS (Victoria University)

Level of Health Professional's Adherence to GOLD Strategy Management Plan for Patients Admitted to Hospital with an Acute Exacerbation of COPD

Clarice Tang

Collaborators: LaTrobe University

Application of a Novel Research Design to Aid Disinvestment from Existing Health Technologies with Uncertain Effectiveness, Cost-Effectiveness and/or Safety

Dr Lizzie Skinner, Tim Chiu

Collaborators: Monash University, Southern Health

Functional Exercise Capacity Measurement in Non-Small Cell Lung Cancer and Colorectal Cancer: Validation of Potential Field Walking Tests

Kirsty May, Catherine Granger, Dr Lizzie Skinner

Collaborators: Royal Melbourne Hospital, The University of Melbourne

OUR RESEARCH - PHYSIOTHERAPY

Botulinum Toxin Outcomes for Stroke Patients

Sarah Kenny, Anna Matthews, Marina Demetrious

Collaborators: Royal Melbourne Hospital

Selection for Inpatient Rehabilitation after Severe Stroke: What Factors Influence Rehabilitation Assessor Decision-Making?

Libby Talbot, Kirsty Kat, Shae Cooke

Collaborators: LaTrobe University, Barwon Health, Florey Institute

Inter- and Intra-Observer Reliability of Anatomic Parameters of X-rays that are used in Classifying Distal Radius Fractures in Adults

Narelle Watson, Professor Jenny Keating, Dr David Alexander, Dr Saeed Asadollahi, Dr Frank Parrish, Ms Jacqui Ridgway, Mr Phong Tran

Collaborators: Monash University, Peninsula Health and Private Radiology Clinic

A Randomised Controlled Trial Investigating the Effect of Duration of Immobilisation on Function Following Open Inter- and Intra-Observer Reliability of Wrist and Forearm Active Range of Motion Measurements Using a Goniometer in Adults Following Distal Radius Fracture

Narelle Watson, Professor Jenny Keating, Emily Cross, Darren Fraser, Collin McIlveen, Anna Nethercote, Rebecca Pile, Kane Rodda.

Collaborators: Monash University

Comparison of the Management of Patients Presenting to the Emergency Departments of Western and Sunshine Hospitals with Acute Knee Injuries

Narelle Watson, Clarice Tang

Treatment of Patellofemoral Pain Syndrome in Adolescents: A Review of the Literature and Recommendations for Physiotherapy Treatment

Sam Wills

STRIPE - Simulated Training and Interprofessional Education

Clare Holdsworth, Janet Beer, David Mai.

Collaborators: Diane Neri, Cathy Dow, STRIPE Project Team

The aim of the STRIPE program was to improve communication, teamwork and response to deteriorating patients within the interprofessional team. Learning objectives (communication, teamwork and response to deteriorating patients) were met and thematic analyses demonstrated the benefits of awareness of roles in interprofessional teams. Interprofessional practice and multidisciplinary team work are becoming increasingly important in the complex and exciting health environment and community that we work within at Western Health. Strategies to optimise communication and collaboration must be implemented to optimise health care outcomes.

A Trial of Early Activity and Mobility in ICU (TEAM)

Dr Lizzie Skinner, Clare Holdsworth, Sam Bates, A/Prof Craig French, Carol Hodgson PT

Collaborators: ANZ Intensive Care Society, The Alfred Hospital, Monash University

The aim of this project is to document current levels of mobility and activity in patients intubated in the ICU for longer than 24 hours. This international multi-centre study supported by the Clinical Trials Group of ANZICS is recruiting 200 patients and Western Health has currently contributed 8 patients.

The goal of the audit data is to allow development of an early goal directed mobility (EGDM) program for pilot implementation which will form the basis for future NHMRC Project Grants. Patients admitted to the ICU have health-related quality of life and physical function lower

than age and gender matched normative samples on long-term follow-up. Early rehabilitation has been shown to reduce length of stay; delirium and morbidity following ICU stay in the USA. These findings need local confirmation, particularly as the standard of rehabilitation care is high in the Australian ICU population (with routine blanket referral rather than physician directed in the USA).

A New Approach to Balance Retraining at Community Based Rehabilitation: The Ai Chi Aquatic Therapy Group "Aqua Balance"

Melissa Hewitt, Tammy Dinh, Claire Thwaites PT/SACS

The aim of this project was to implement an Aquatic Ai Chi Therapy group and evaluate the effect of the group on balance outcome measures and self-reported falls. 30 patients completed the AquaBalance program with a reduction in the number of self-reported falls and high patient satisfaction with no adverse events.

Balance tests were significantly improved following the program in participants attending AquaBalance (Timed Up and Go Test, 10 metre Walk Test, 4 Square Step Test). Falls and the elderly population are a significant focus for our community-based rehabilitation services at Sunshine Hospital. This pilot project demonstrates sufficient evidence to allow us to plan for a pilot randomised controlled trial in 2013-14.

The Effect of Moderate-Intensity Cardiovascular Fitness Training Compared to Standard Care in People with a Diagnosis of Stroke: A Pilot Randomised Controlled Trial

Hanna Reynolds, Jane Tillyard, Sarah Kenny, A/Prof Andy Stewart, Dr Lizzie Skinner,

Collaborators: AIMSS & Victoria University

Allied Health (cont.)

Previous work in this area has developed and introduced a guideline for cardiovascular training in people with a diagnosis of stroke. The aim of this project is to build on former work and conduct a pilot randomised controlled trial of cardiovascular training in this population. The research proposal has been developed and the HREC application is being developed for submission early in 2013. The National Stroke Foundation's Clinical Guidelines for Stroke Management 2010 state that stroke rehabilitation should include interventions aimed at improving CV fitness for secondary prevention and to optimise rehabilitation outcomes. Cardiovascular training may have benefits on quality of life and functional performance in patients with stroke. This pilot work will form the foundation of future project grant applications and is the first example of our collaborative research with AIMSS.

Does a Structured Simulation-Based Training Program Improve Junior Physiotherapists' Confidence in Cardiorespiratory Skills for Weekend Work?

Christine Polmear, Clare Holdsworth PT

The aim of this project was to evaluate the effect of simulation sessions targeting cardiorespiratory core competencies on junior physiotherapists' confidence.

Self-rated confidence of participants in the use of CPAP, airways improved significantly following training. Future work will focus on evaluating change in practice in addition to self-report.

Training staff to deliver optimal care using evidence-based practice is critical to deliver best health outcomes. Training can be resource intensive and research is required into the best ways of training graduate clinicians. The results of this training will be relevant to all disciplines across Western Health.

Reduction and Internal Fixation for Distal Radius Fractures in Adults

Narelle Watson, Professor Jenny Keating, Emily Cross, Darren Fraser, Collin McIlveen, Anna Nethercote, Rebecca Pile, Kane Rodda, Paul Silk, Clarice Tang,

Collaborators: Monash University

The primary aim of this investigation is to compare the immobilisation periods of one, three and six weeks for acute distal radius fractures following locked volar plate fixation for the outcome measures of function (PRWE, DASH), range of movement, grip strength and pain (Visual Analogue Scale, VAS) when measured over a six month period from the date of surgery. Collaboration between the WH Physiotherapy and WH Orthopaedic Departments has been one of the key factors facilitating the implementation of this investigation. Data collection for this investigation commenced in June 2012 and will continue throughout 2013/14. Although distal radius fractures commonly occur, factors that affect treatment outcomes have not been well defined. There is a gap in our current knowledge regarding how long a wrist should be immobilised in a cast following surgical repair. Information from this investigation will be used to determine whether one immobilisation period is better than another in regards to function and pain. This information will enable us to improve the management of wrist fractures following surgical repair in the future.

OUR RESEARCHERS

Tim Chiu: Manager of Physiotherapy

Dr Elizabeth Skinner: Physiotherapy Research Co-ordinator; Senior ICU Physiotherapist

Narelle Watson: Co-ordinator Advanced Practice Allied Health; Senior Orthopaedic Physiotherapist

Clare Holdsworth: Senior ICU Physiotherapist

Christine Polmear: Senior Cardiorespiratory/ICU Physiotherapist

Kirsty May: Senior Cardiorespiratory/ICU Physiotherapist

Claire Boote: Senior Cardiorespiratory Physiotherapist

Kathryn Barker: Senior Cardiorespiratory Rehabilitation Physiotherapist

Hanna Reynolds: Senior Neurological Physiotherapist

Jane Tillyard: Senior Neurological Physiotherapist

Sarah Kenny: Senior Neurological Physiotherapist

Kirsty Kat: Senior Neurological Physiotherapist

Catherine Grant: Senior Neurological Physiotherapist

Darren Fraser: Senior Musculoskeletal Physiotherapist

Kane Rodda: Senior Musculoskeletal Physiotherapist

Rebecca Pile: Senior Musculoskeletal Physiotherapist

Jackson Boyd: Senior Musculoskeletal Physiotherapist

Collin McIlveen: Senior Musculoskeletal Physiotherapist

Clarice Tang: Senior ED Physiotherapist

Sam Wills: Senior Paediatric Physiotherapist

Melissa Hewitt: Grade 2 Physiotherapist

Tammy Dinh: Grade 2 Physiotherapist

Anna Nethercote: Grade 2 Physiotherapist

Libby Talbot: Grade 2 Physiotherapist

Sarah Davies: Grade 2 Physiotherapist

Shae Cooke: Grade 2 Physiotherapist

Emily Cross: Grade 2 Physiotherapist

Anna Matthews: Grade 2 Physiotherapist

Claire Thwaites: Grade 2 Physiotherapist

Paul Silk: Member Research Committee

Melanie Lloyd: Member Research Committee

Fiona McManus: Member Research Committee

Bernadette Sexton: Member Research Committee

Liesel Jansen: Member Research Committee

Aruska D'Souza: Member Research Committee

OUR RESEARCH STUDENTS

Narelle Watson: PhD

Clarice Tang: Clinical Doctorate

OUR AWARDS

Excellence Award (Safe and Effective Patient Care)

Recipient(s): Melissa Hewitt, Tammy Dinh

"A New Approach to Balance Retraining at Community Based Rehabilitation: The Ai Chi Aquatic Therapy Group "Aqua Balance"
Western Health: \$500

Allied Health Innovation Award

Recipient(s): Clare Holdsworth, Janet Beer, David Mai, Diane Neri, Cathy Dow
"STRIPE - Simulated Training and Interprofessional Education" Western Health: \$250

Allied Health Innovation Award

Recipient(s): Hanna Reynolds, Jane Tillyard
"Cardiovascular Fitness Training in People with a Diagnosis of Stroke: Development of a Clinical Guideline"
Western Health: \$250

PROJECT GRANT

Clare Holdsworth, A/Prof Clare Delany, Dr Elizabeth Skinner *"Using Immersive Simulation Training to Enhance Student Supervision Skills of Physiotherapy Clinical Educators: A Randomised Controlled Trial"*
Pat Cosh Trust (Australian Physiotherapy Association) \$24,570.40

SEEDING GRANT

Dr David Scott, Dr Pazit Levinger, Dr Elizabeth Skinner, A/Prof Terry Haines, Prof Peter Ebeling, A/Prof Kerrie Saunders *"Associations Between Sarcopenia, Vitamin D and Falls"* AIMSS: \$19,909

SEEDING GRANT

Dr Pazit Levinger, Darren Fraser, Becky Pile, Simon Talbot *"A Novel Web-Support Intervention for Patients Following Anterior Cruciate Ligament Reconstruction"*
AIMSS: \$10,000

TAGGED GRANT

Dr Elizabeth Skinner, A/Prof Shane Patman, Dr Julie Reeve, Dr Peter Thomas *"Minimum Standards of Practice for ICU Physiotherapists"* Awarding Body: Physiotherapy Research Foundation (WA Board): \$25,000

PROFESSIONAL AND COMMUNITY ENGAGEMENT

Skinner EH: Cardiorespiratory Australia (Australian Physiotherapy Association)
National Conference Scientific Committee

Skinner EH: Scientific manuscript reviewer for Intensive Care Medicine, Value in Health, Physical Therapy, Respiratory Care, Health and Quality of Life Outcomes, Heart Lung and Circulation, Journal of Ageing and Physical Activity.

Allied Health (cont.)

Psychology

The Psychology Department comprises Adult Neuropsychology, Paediatric Neuropsychology and Adult Clinical Psychology across three campuses.

There has been an exciting development in collaboration for a research project for cancer patients with Newcastle University NSW, and a second study in the early stages of collaboration with Victoria University undertaking qualitative research with people diagnosed with prostate cancer.

Collaboration is also underway with La Trobe University and research in the adult neuropsychology field. Two further areas have focussed on paediatric neuropsychology and culturally specific patient cohorts in Clinical Psychology.

An Investigation into the Cognitive Skills Underpinning Single Word Decoding in Children with Reading Disorders

Dr Renee Testa, Associate Researchers: Mrs Amy Lee; Ms Nola Ross

Collaborators: Professor Jennie Ponsford, Department of Psychology and Psychiatry, Monash University

An Investigation of Pervasive, Social and Interpersonal Difficulties in Childhood: Cognitive, Motor, Language and Neurological Functioning

Dr Renee Testa

Collaborators: Associate Researchers: Mr Harvey Jones; Ms Nola Ross; Dr Marc Seal; Prof. Bruce Tonge; Prof. Christos Pantelis, Monash University, Melbourne University and Murdoch Children's Research Institute

A Cluster Analysis Exploration of the Characteristics of High-Functioning Subgroups within the Autism Spectrum in Children Aged 8-12 Years

Dr Renee Testa

Collaborators: Associate Researchers: Felicity Klopper; Prof. Chris Pantelis; Prof. Bruce Tonge; Prof. Stan Skafidus, Monash University, Melbourne University

Validation of the Turkish Version of the DASS21 in a Turkish Immigrant Outpatient Population – Recruited Participants through General Outpatients at Western Health

Dr Litza Kiroopoulos

Collaborators: The University of Melbourne

Examination of Psychosocial Risk Factors in Greek-Born and Italian-Born Immigrants and Anglo-Australians with Coronary Heart Disease: The Healthy Mind, Healthy Heart Study – Recruited Participants Through the Coronary Care Unit at WHF

Dr Litza Kiroopoulos

Collaborators: The University of Melbourne, Monash University, MonashHeart, Southern Health

An Examination of Distress Tolerance and Anxiety Sensitivity as Predictors of Anxiety Symptoms in an Australian Cardiac Sample

The Role of Individual Patient, Social and Treatment Centre Variables in the Psychosocial Outcomes of Cancer Patients

Prof. Rob Sanson-Fisher and Team, Prof. Michael Green, Grey Searle

Collaborators: The University of Newcastle, NSW. Treatment Hospitals in Tasmania, New South Wales and Victoria

Lateralisation of the Perception of Affective Facial Expressions in Unilateral Stroke Patients

Diana Perre, Tissa Wijeratne, Jacenta Abbott, Annukka Lindell, Geoff Cumming, Andrew Hughes, Lisa Sherry

This research project investigates whether the right and left sides of the brain differ in how they process positive and negative emotions, and whether the strategies used to process negative and positive emotions are holistic (i.e. process the whole face) and/or featural (i.e. process particular facial parts). This project is in the final stages of data collection with data analysis scheduled for early 2013.

Investigating how the right and left sides of the brain process emotions will help shed light on how the mind processes emotion in faces. We rely on our ability to understand how others are feeling in everyday life in order to respond appropriately. Therefore the benefits from increasing understanding of the how the brain processes negative and positive facial emotions could guide the neuro-psychological assessment as well as the development of intervention programs to better assist the rehabilitation of patients with acquired brain injury. Collaborator: La Trobe University.

OUR RESEARCHERS

Grey Searle: Manager, Psychology

Dr Renee Testa: Psychology

Dr Litza Kiroopoulos: Psychology

Dr Dianna Perre: Psychology

Dr Hunter Mulcare: Psychology

OUR RESEARCH STUDENTS

Jacenta Abbott (Psych), Doctor of Psychology (Clinical Neuropsychology)

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Allied Health (cont.)

Social Work

MELBOURNE UNIVERSITY AND WESTERN HEALTH DEPARTMENT OF SOCIAL WORK RESEARCH PARTNERSHIP

The Department of Social Work (DSW) staff are actively involved in the Community of Practice / Clinical Rotation Research program, auspiced by The Melbourne University School of Social Work. Dr Maree Connelly (Chair and Head, School of Social Work) and Sevi Vassos (Associate Lecturer) are researching a new model for health social work fieldwork programs. Western Health DSW is a primary participant along with Melbourne Health, Austin Health, St Vincent's Health and The Children's Hospital. In 2012, phase 2 was completed (phase 1 completed in 2011) with six social work students participating in the Western Health program. Phase 3 will be undertaken in 2013, with results expected by mid 2014. The program focuses on workforce development in the area of clinical education and applied practice, as well as new and innovative student learning through practice based research.

The initial findings of the program will be presented at the 7th International Conference on Social Work in Health and Mental Health in 2013. The paper will be presented by Associate Lecturer, Sevi Vassos on behalf of the clinical educators, from each health service.

Ande Szendoe

DEVELOPING AN ALLIED HEALTH SERVICE IN A NEW RADIOTHERAPY CENTRE IN THE WEST OF MELBOURNE

Senior social worker Laurelle Stalker and Dr. Hunter Mulcare a psychologist, at the Sunshine Radiotherapy Centre attended the 39th Annual Scientific meeting of the COSA / IPOS combined conference held in Brisbane on 13th to 15th November 2012. The conference was held in partnership with key Australian partners; Cancer Council Queensland, POCOG (Psycho-Oncology Co-operative Research Group) and OZPOS COSA's psycho-oncology group. The theme for the joint conference was "Impact

through Translation: Cancer Research Informing Practice". The primary focus for the conference was psycho-oncology and COSA's disease theme was skin cancer.

At the conference, a poster was presented on behalf of the Radiotherapy Allied Health Team on the Development of the Allied Health Team at the Sunshine Radiotherapy Centre. The poster was well received and was an excellent opportunity to showcase the inter-disciplinary work that has been achieved in developing and delivering allied health services to patients undergoing radiotherapy treatment at the Centre and their families.

Laurelle Stalker

OUR RESEARCHERS

Ande Szendoe: Manager, Social Work

Laurelle Stalker: Senior Social Worker

A Western Health Social Worker listens to the patient experience.



Allied Health (cont.)

Speech Pathology

The Speech Pathology Department is currently conducting research within a variety of areas relating to the assessment and management of communication and swallowing impairments, across both the continuum of care and lifespan. Of particular focus in 2012, has been the evaluation of outcomes associated with a number of service delivery initiatives aimed at improving the healthcare journey of both patients and their carers.

In 2012, the Speech Pathology Department has worked in conjunction with the multidisciplinary team to assess the service delivered to children by the Autism Assessment Team; and to identify the type and prevalence of communication barriers that exist within the geriatric population on our sub-acute wards. It is anticipated that the outcomes of these projects will drive service change to improve the healthcare journey of these patients.

The implementation of the Dysphagia Clinic is anticipated to reduce waiting times for outpatients referred with swallowing impairments and to improve their access to specialist instrumental dysphagia assessments. It is hoped the Multidisciplinary Tracheostomy Review Service will result in reductions in length of stay, ICU re-admission rates, adverse events, and cannulation times.

The Speech Pathology Department was responsible for delivering 10 conference/ seminar presentations in 2012.

It is anticipated that 2013 will be another busy year for the Speech Pathology Department, with completion of data collection and analysis for a number of ongoing projects. The department will additionally be investigating the impact of smart technology on patient participation in therapy within the sub-acute setting.

OUR RESEARCH

Improving Access to Communication Intervention for Acute Stroke Patients at Western Hospital

Jane Smith, Sarah Ward, Ruth Best

Establishment of a Dysphagia Clinic: An Investigation of Patient and Service Delivery Outcomes

Ruth Best, Lauren Belleli SP

Evaluation of the Implementation of a Tracheostomy Review Service (TRS) at Western Health

Anita McKinstry & Louise Malcolm (SP), Clare Holdsworth (PT), Dr. Anne Marie Southcott (Head of Respiratory Medicine), Anna Green (Nursing), Multidisciplinary Tracheostomy Review Service (TRS)

Identifying Communication Barriers on Geriatric Evaluation and Management (GEM) Wards at Western Health (A Prevalence Study)

Hemant Jeena, Merridy Moore, Sally Howard, Courtney Pocock, Kathryn Langshaw SP

This project aims to identify the existing barriers to effective communication between patients and staff on the GEM wards at Western Health.

Data collection has been completed within the GEM wards at both Sunshine and Western Hospitals, and is nearing completion at Williamstown Hospital. Effective communication between patients and healthcare providers within the ward environment is essential to the provision of high quality clinical care, with current evidence suggesting a link between good communication and positive healthcare outcomes. Conversely, reduced patient and healthcare provider accessibility to information has been shown to result in adverse medical events such as misdiagnosis, inappropriate treatment, medication errors, and even death; highlighting the importance of identifying and addressing barriers to effective communication within the ward environment.

Speech Pathology Pulmonary Rehabilitation Education Package

Kathryn Langshaw, Ruth Best, Laura Bezzina, Tom Gauci SP

This project aims to assess the impact of a revised Speech Pathology Pulmonary Rehabilitation education package on patient knowledge in a number of areas including self-management of dysphagia. To assess the impact of the revised education package on the consistency of information provided by Speech Pathology staff during education sessions. Data collection has been completed and data is currently being analysed. Aspiration of food and liquid is common in patients with Chronic Obstructive Pulmonary Disease, such as those attending the Pulmonary Rehabilitation program at Western Health. It is therefore essential that these patients have access to high quality education regarding the identification and self-management of dysphagia.

Evaluation of the Implementation of a Tracheostomy Review Service (TRS) at Western Health

Anita McKinstry & Louise Malcolm (SP), Clare Holdsworth (PT), Dr. Anne Marie Southcott (Head of Respiratory Medicine)

This project evaluates the effect of implementing a specialised multidisciplinary tracheostomy team/review service on the outcomes of Western Health patients with tracheostomy tubes in situ. The TRS was established at Western Hospital in 2012 and is currently in its trial phase during which data is being collected. It is anticipated that implementation of the TRS will have positive outcomes for patients, including a reduction in length of stay, reduction in ICU re-admission rates, reduction in adverse events, and reduction in cannulation times.

OUR RESEARCHERS

Meredith Swaby: Manager, Speech Pathology & Audiology

Ruth Best: Senior Speech Pathologist

Sally Butzkueven: Senior Speech Pathologist

Sally Howard: Senior Speech Pathologist

Louise Malcolm: Senior Speech Pathologist

Anita McKinstry: Senior Speech Pathologist

Merridy Moore: Senior Speech Pathologist

Sarah Ward: Senior Speech Pathologist

Lisa Worthington: Senior Speech Pathologist

Nadine Alexander: Speech Pathologist

Lauren Belleli: Speech Pathologist

Sally Butzkueven: Senior Speech Pathologist

Sally Howard: Senior Speech Pathologist

Louise Malcolm: Senior Speech Pathologist

Anita McKinstry: Senior Speech Pathologist

Merridy Moore: Senior Speech Pathologist

Sarah Ward: Senior Speech Pathologist

Lisa Worthington: Senior Speech Pathologist

Nadine Alexander: Speech Pathologist

Lauren Belleli: Speech Pathologist

Laura Bezzina: Speech Pathologist

Nikol Faris: Speech Pathologist

Tom Gauci: Speech Pathologist

Hemant Jeena: Speech Pathologist

Kathryn Langshaw: Speech Pathologist

Richa Mishra: Speech Pathologist

Courtney Pocock: Speech Pathologist

Jane Smith: Speech Pathologist

Rachel Smith: Speech Pathologist

OUR AWARDS

Western Health Excellence Award

Recipient(s): Rachel Smith *"The Global Mealtime Guide"* Awarding Body: Western Health Total Funding Amount: \$2,000 Year(s) Awarded: 2012

Innovations in Client Centred Care (Allied Health Innovation Award)

Recipient(s): Rachel Smith & Richa Mishra (SP), Vicky Saunders (DT) *"Fun with Food Group"* Awarding Body: Western Health Total Funding Amount: N/A Year(s) Awarded: 2012

Most Innovative Concept (Allied Health Innovation Award)

Recipient(s): Sally Howard *"iPads: A New Technology in the Health Care Setting"* Awarding Body: Western Health Total Funding Amount: N/A Year(s) Awarded: 2012.

PT = Physiotherapy
SP = Speech Pathology
OT = Occupational Therapy
SACS = Subacute Ambulatory Care Services,
CAHS = Children's Allied Health Services
SW = Social Work, DT = Dietician

ALLIED HEALTH RESEARCH OUTPUT

PUBLICATIONS: 6
PRESENTATIONS: 42

Anaesthesia and Pain Management

Research in the Department of Anaesthesia and Pain Management has focused in 2012 on perioperative pain management, exercise physiology, and modification of cardiovascular and respiratory disease risk factors.

Research projects have ranged in size from departmental audits and locally run studies through to multicentre, international randomised controlled trials (RCT). An important benefit of our expanding research involvement has been the valuable collaborations established internationally, locally, and within our organisation.

Throughout 2012, the department has increased its involvement in large-scale international studies. POISE-II aims to recruit 10,000 patients to answer the question of whether aspirin and clonidine could play a role in preventing perioperative cardiovascular morbidity and mortality. The department is also recruiting to Enigma-II, another large RCT looking at the effects of nitrous oxide gas on patients at risk of perioperative cardiovascular complications.

At a more local level, we have been leading our own research projects. SUSTAIN for PAIN is a multicentre RCT looking at a technique of pain relief following abdominal surgery. Western Health is the coordinating site for this project, which is funded by \$30,000 in grants from the Australian and New Zealand College of Anaesthetists, and the Australian Society of Anaesthetists.

In collaboration with the Respiratory Department, Dr David Bramley has been coordinating an observational study looking at respiratory outcomes in patients at risk of obstructive sleep apnoea. With increasing numbers of Western Health surgical patients presenting with risk factors associated with OSA, this is an important study to help guide risk stratification and allocation of health resources like post-operative high dependency care.

A long-standing area of research interest within the department has been exercise physiology and perioperative optimisation of cardiorespiratory function, led by Dr Bob Smith. Dr Smith commonly lectures on these areas in the UK. He has developed strong collaborative links with Aintree Hospital in UK, Peter MacCallum Cancer Centre in Melbourne, and Victoria University. He is currently planning further studies looking at optimisation of cardiorespiratory function to improve outcomes following upper gastrointestinal surgery and colorectal surgery.

Future goals for our department are to continue to grow our research capability and involvement. There are many exciting new research opportunities on the horizon, including some locally developed, large-scale projects that would be particularly suited to our Western Health patient population.

OUR RESEARCH

Enigma-II

Dr Andrew Jeffreys, Dr Adriano Coccianti, Dr David Bramley, Ms Ellen Kinkel

Study led by Prof. Paul Myles, Director Department of Anaesthesia and Perioperative Medicine, Alfred Hospital, Chair, Local coordinator ANZCA Trials Group

Effects of Salbutamol on Potassium and Performance during Severe Exercise

Institute of Sport, Exercise and Active Living at Victoria University of Technology, Prof Michael McKenna and Tania Atanasovsk, Dr Bob Smith

Central and Muscular Fatigue during Severe Exercise

Institute of Sport, Exercise and Active Living at Victoria University of Technology, Prof Michael McKenna, Trevor Farr, Dr Bob Smith

Using Non-Invasive Measurement of Cardiac Output Devices during Cardiopulmonary Exercise Testing

Assoc. Prof Bernard Riedel, Dr Hilmy Ismail, Dr Bob Smith

POISE-II

Dr Andrew Jeffreys, Dr Elizabeth Hessian, Ms Ellen Kinkel

Collaborators: Study led by Prof P. J. Devereaux, Population Health Research Institute (PHRI) McMaster University, Hamilton Ontario Canada. Local coordinator ANZCA Trials Group

This is a factorial study looking at whether aspirin and clonidine can reduce cardiovascular morbidity and mortality in patients at risk of these complications. The recruitment has just reached 7,000 patients of a planned 10,000 participant sample. Many of our Western Health patients have risk factors for cardiovascular disease. The results from this study will help guide administration of aspirin and clonidine to potentially reduce these risks in the perioperative period.

SUSTAIN for PAIN

Dr Elizabeth Hessian, Dr Kate Algie, Ms Jill Woods, Ms Ellen Kinkel.

Collaborators: Barwon Health, Royal Melbourne Hospital, North-East Health Wangaratta, Wollongong Hospital.

This RCT is studying whether the use of transversus abdominis plane ropivacaine infusions can reduce postoperative pain following abdominal surgery. The study has reached the mid-point of planned recruitment.

Effective analgesic techniques can help improve postoperative quality and time to recovery, and reduce postoperative complications.

Sublingual Ketamine for Painful Ward Procedures

Ms Jill Woods, Dr Nick Litzow, Dr Bronwen Evans, Dr Elizabeth Hessian, Ms Ellen Kinkel, Ms Col Killmier

This audit is looking at the quality of pain relief, and side-effects from sublingual ketamine. There is a paucity of literature on the use of ketamine sublingually, and this audit aims to describe a cohort of patients receiving ketamine for ward procedures like dressing changes.

The use of sublingual ketamine may provide a safe, effective method of analgesia for patients, without the need for resource-intensive anaesthesia intervention.

Using Non-Invasive Measurement of Cardiac Output Devices during Cardiopulmonary Exercise Testing

Assoc. Prof Bernard Riedel, Dr Hilmy Ismail, Dr Bob Smith

This study is correlating the outputs of newer non-invasive cardiac output monitors with validated measures of cardiac output like cardiopulmonary exercise tests.

Evaluating simpler forms of equipment that measure cardiac output may allow less invasive techniques to be used in anaesthesia, reducing both risks to patients and cost to the health care system.

OSA Study

Dr Anne-Marie Southcott, Dr Laina Sheers (Respiratory Department)

This is an observational study looking at postoperative respiratory outcomes in patients at risk of obstructive sleep apnoea. All patients recruited undergo a preoperative sleep study, and additional postoperative monitoring on the ward.

Postoperative respiratory complications pose a significant safety risk in patients with obstructive sleep apnoea. This study will help direct safe post-operative monitoring practices to minimise these risk.

Collaborators: Dr David Bramley

OUR RESEARCHERS

Dr Andrew Jeffreys: Director, Anaesthesia and Pain Management

Dr David Bramley: Deputy Director, Anaesthesia and Pain Management

Dr Bronwen Evans: Consultant Anaesthetist, Coordinator Acute Pain Management Service

Dr Elizabeth Hessian: Consultant Anaesthetist

Dr Bob Smith: Consultant Anaesthetist

Dr Adriano Coccianti: Consultant Anaesthetist

Dr Zamil Karim: Consultant Anaesthetist, Consultant Pain Specialist

Ms Ellen Kinkel: Research Coordinator

Ms Jill Woods: CNC Pain Management Service

Ms Davina Taylor: CNC Pain Management Service

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

David Bramley

Scientific Convenor Australian and New Zealand College of Anaesthetists (ANZCA) 2013 Annual Scientific Meeting
Honorary Secretary Victorian Regional Committee, ANZCA

Andrew Jeffreys

Member Victorian Regional Committee ANZCA
Chair, ANZCA Association of Anaesthesia Directors

Richard Horton

Regional Education Officer ANZCA Victorian Regional Committee
ANZCA College Examiner

Umraniker A: ANZCA College examiner

Elizabeth Hessian: Member Western Health Low Risk Research Panel

Angela Marsiglio: Member Western Health Low Risk Research Panel

Bronwen Evans: Member Western Health Pain Management Committee

Bronwen Evans: Member Western Health Working Party for Delirium Management.

RESEARCH OUTPUT

PUBLICATIONS: 1
BOOK CHAPTERS: 1
PRESENTATIONS: 7

024 Cardiology

Research has become a major focus in the Cardiology Department over the last two years. This has been evident through our active participation in national and international collaboration trials and strong involvement of junior and senior staff in locally initiated research studies. Major trials we participated in were NHMRC funded SAFETY trial evaluating the home based management of atrial fibrillation, AVOID trial evaluating the effect of oxygen supplementation in acute MI, AMI Pre-notification study (PNS) evaluating the benefit of MICA faxing STEMI ECG en route to PCI centre, CANTOS trial evaluating the use of monoclonal antibody Canakinumab as an anti-inflammatory agent in the coronary thrombosis, FOURIER and GLAGOV trials evaluating the use of PCSK-9 monoclonal antibody AMGEN 145 as a new therapeutic agent for reducing LDL-cholesterol and promoting coronary plaque regression. PNS trial confirmed that STEMI pre-notification resulted in marked reduction of door-to-balloon time in the treatment of AMI. Pre-notification of STEMI has become a standard practice throughout Victoria.

Our significant contribution in multicentre trials has put Western Health on the world map of cardiovascular research and attracted further invitations to take part in major commercial and non-commercial research. Our locally initiated studies in the fields of cardiac CT imaging, heart failure and acute coronary syndrome, promote closer collaboration between in house departments, and result in abstracts presentations at major cardiology conferences and several peer-review publications.

The Cardiology Research Symposium held in October 2012 set the themes and strategy for future cardiovascular research at Western Health. We aim to excel in the research of cardiovascular imaging, treatment of heart failure, preventative cardiology and management of acute coronary syndrome, through collaboration with other health networks. We are also hopeful to attract postgraduate students doing cardiovascular research at Western Health in years to come.

OUR RESEARCHERS

Dr Nicholas Cox: Director of Centre of Cardiovascular Therapeutics

Associate Professor Chiew Wong: Head of Non-invasive Cardiac Investigations

Associate Professor David Eccleston: Interventional Cardiologist

Associate Professor Kean Soon: Interventional Cardiologist

Dr Salvatore Rametta: Interventional Cardiologist

Dr Dinesh Natarajan: Cardiology Registrar

Dr Alex Adel: Cardiology Registrar

Dr Steve Marasovic: Cardiology Registrar

Dr Tumur Odgerel: Medical Registrar

Dr Sinjini Biswas: Medical Resident

Our Research Nurse

RN Vanessa Lee

OUR RESEARCH STUDENTS

Mr John Du: Medical Research Student

Ms Wan Nurulfaiza Akmal Wan Salam: Medical Research Student

CURRENT CLINICAL TRIALS BEING UNDERTAKEN IN CARDIOLOGY

FOURIER 20110118: Further Cardiovascular Outcomes Research With PCSK9 Inhibition in Subjects With Elevated Risk

Dr Nicholas Cox

Standard versus Atrial Fibrillation specific management study (SAFETY)

A. Prof. Chiew Wong

CL2-16257-101 (Yet to be named): Use of Ivabradine in patients with Heart Failure and Preserved Left Ventricular Ejection Fraction

A. Prof. Chiew Wong

GLAGOV 20120153: Global Assessment of plaque regression with a PCSK9 antibody as measured by intravascular ultrasound

A. Prof. Kean Soon

Ambulance Pre-Notification of STEMI (PNS trial)

A. Prof. Kean Soon

CANTOS CACZ885M2301: Canakinumab Anti-inflammatory Thrombosis Outcomes Study

A. Prof. David Eccleston

AVOID: Randomised Trial of Oxygen Therapy vs No oxygen therapy In STEMI

Dr Sal Rametta

RESEARCH OUTPUT

PUBLICATIONS: 11
BOOK CHAPTERS: 1
PRESENTATIONS: 9

WHICH way is best for patients?

Western Health's Cardiology Department is participating in an exciting new study, with over \$1.8 million funding from the NHMRC.

The multicentre, randomised 'WHICH? II Trial', will see 600 patients (200 patients apiece from Western Health, St Vincent's in Sydney and Queen Elizabeth Hospital in WA) recruited with a view to building upon the results of the previously NHMRC funded 'WHICH? Trial', led by the Baker IDI Heart and Diabetes Institute.

Western Health's Director of Non-Interventional Cardiology, Associate Professor Chiew Wong is taking the lead in Western Health's participation, along with Dr Nick Cox, Director of Cardiology and Professor Edward Janus who see many potential participants through the Cardiology and General Medicine streams.

"The 'WHICH? II Trial' has the potential to show us the most cost-effective way to optimise chronic heart failure outcomes, and explore patient preferences on how they receive their management programs," says A/Prof Wong.

"Cardiovascular disease and its most common manifestation, heart disease, affect more Australians than any other disease type, including cancer. In 2011-2012 around 1500 admissions to Western Health had a diagnosis of heart failure.

"The study will involve the comparison of outcomes between patients who receive a standard, post-discharge chronic heart failure management program, and patients who receive a more intensive program of management.

"By integrating things like home visits from cardiac nurses, particularly for older patients in non-metropolitan areas and those in high risk groups, and implementing structured telephone support, we can improve outcomes for patients."

"One of the outcomes I am most looking forward to from the 'WHICH? II Trial' is the impact it will have on our ability to offer patients more choice in how they receive their care. Some patients dislike hospitals. Maybe in the future we can do more to deliver their care at home or in their community," said A/Prof Wong.

Associate Professor Chiew Wong with a cardiology patient.



026 Drug Health Services

Research in the Drug Health Services for the 2012 year has been focused on quality assurance program evaluation activities with a focus on examining what we do and how we do it, as well as identifying service gaps and improvements. The state-wide drug and alcohol sector has been undergoing a period of major reflection of the best treatment options and how to give our clients the best evidenced based treatment, so the research projects of 2012 fit in with this broad sector agenda of service improvement. There were four research/QA projects in 2012 and these are still currently underway.

A key research direction for 2013 lies in the evaluation of care models. The primary one will be the development of a model of care reflecting the Chronic Disease Management Model being implemented with the drug and alcohol/addiction field. The assessment of priority areas is in progress. Drug Health Services will be conducting a research mapping exercise in collaboration with Associate Professor Craig Fry in 2013. It is anticipated that the results will reflect the multidisciplinary nature of the team and work done at Drug Health Services.

CURRENT RESEARCH

The great debate: clients and clinicians and their perceptions of in-patient drug treatment (detoxification/withdrawal units)

Ruben Ruolle

The Spirit of the Act: Critically Reflecting on the Severe Substance Dependence Treatment Act 2010

Brad Roberg and Scott Withy

Mindfulness Group Evaluation within the DASWest Adult withdrawal Unit

Ben Williams

Collaborators: Liz Cooper

Nurse Practitioner (Drug and Alcohol) Homeless Persons Drug Treatment Clinics
Marcus Forsythe and Scott Withy

The aim of this project is to provide drug treatment to the homeless population in West Melbourne at a homeless service and to assess the viability and effectiveness of this new service. This is a significantly marginalised group in the community who find it difficult to access drug treatment services via the usual pathway.

Managing Co-Morbid Substance Use and Mental Health within the Tertiary Hospital Setting: A Cross Sectional Screening Survey

Dr Helen Sweeting, Sharon Desmond, Dr Mike McDonough, Simon Edward

This project aims to estimate the prevalence of harmful and dependent substance use in patients presenting to Western Hospital. To estimate the prevalence of co-morbid high prevalence/low impact mental health disorders in the population identified with harmful and dependent substance use. To understand the current service gap in delivery of advice and management expertise to other disciplines caring for patients with harmful and dependent substance use within Western Health hospitals. Given the preliminary prevalence rates of alcohol and tobacco use, there may be value in using a brief screening questionnaire for all patients within Western Health hospitals, and an expanded Addiction Medicine / Drug Health Consultation Liaison Service at Western Health.

OUR RESEARCHERS

Ruben Ruolle: Acting Community Programs Manager, Drug Health Services

Dr Helen Sweeting: Addiction Medicine Specialist

Brad Roberg: Team Leader Specialist Services, Drug Health Services.

Scott Withy: Clinician, Specialist Pharmacotherapy Program.

Ben Williams: Clinician, Intake Team, Drug Health Services

Marcus Forsythe: Nurse Practitioner

RESEARCH OUTPUT

PRESENTATIONS: 5

Addiction Medicine & Toxicology

The Department of Addiction Medicine & Toxicology sits within Western Health's broader Drug Health Services, the latter also including a range of community-based programs. Our research activities relate to common clinical treatment concerns that relate to a large section of patients referred to our Unit; in particular, there is a National Prescription Drug Initiative, and a major concern within this relates to dramatically increased rates of prescribing of opioid analgesics for non-cancer pain within the general population. During the last few years, we have been seeing much increased numbers of patients who have prescription drug problems, many of whom are using large doses of opioid analgesics.

This year, we focused upon prescription opioids and their use in treating chronic, non-cancer pain; also we looked at methadone which is increasingly used to treat both pain and addiction problems. Dr McDonough collaborated with Dr Jenny Pilgrim (Victorian Institute of Forensic Medicine) to review methadone related deaths in Victoria with results now submitted for publication; collaborated in a research project on alcohol related ABI issues with Prof Joe Ibrahim and a resulting paper is pending publication; published two papers (see below) and presented a detailed case series on Cannabis and Hyperemesis at the annual meeting of the European Association of Poisons Centre's and Clinical Toxicologists in London. Dr McDonough and rotating Registrar, Dr Simon Edward, collected a case series of patients presented with agitated delirium and are preparing this as a paper for publication.

Also, during 2012, Dr Sweeting undertook a survey of substance use within hospital inpatients at Western Hospital. The findings will be presented at Grand Rounds in February 2013. Thereafter, a further survey is planned for Sunshine Hospital and later, all data analysed and presented for publication.

RESEARCH OUTPUT

PUBLICATIONS: 2
PRESENTATIONS: 2

OUR RESEARCHERS

Dr Mike McDonough: Head of Unit

Dr Helen Sweeting: Addiction Medicine Specialist

Dr Simon Edward: Registrar

Gastroenterology & Endoscopic Services

The main research activities undertaken in the department of Gastroenterology are clinical trials in relation to new therapies. Therefore we can offer suitable patients an opportunity to receive new therapies under strict guidelines which would be normally unavailable for several years.

In 2012 we had several trials for the new direct acting antiviral for chronic hepatitis C which was a wonderful opportunity to offer this to our clinic patients.

CURRENT RESEARCH

A phase IIIb, multinational, randomised, double-blind, placebo-controlled trial to assess the efficacy and safety of certolizumab pegol, a pegylated Fab' fragment of a humanized anti-TNF-alpha monoclonal antibody, administered subcutaneously at weeks 0, 2 and 4 in subjects with moderately to severely active Crohn's disease.

Dr I J Kronborg. Sponsor: UCB

A phase IIIb, multinational, open-label, follow-on trial to C87085 designed to assess the long-term safety of certolizumab pegol, a pegylated Fab' fragment of a humanized antiTNFalpha monoclonal antibody, administered at weeks 0, 2 and 4, and then every 4 weeks thereafter, in subjects with moderately to severely active Crohn's disease who have participated in study (C87085)

Dr I J Kronborg. Sponsor: UCB

A Phase 3 Open-label Study to Determine the Long-Term Safety and Efficacy of MLN0002 in Participants with Ulcerative Colitis and Crohn's

Dr Ian J Kronborg, Dr Shamilah Lachal.
Sponsor: Millenium

A Phase 2 Randomised, Open-Label, Exploratory Trial of GS-5885, GS-9451 with Peginterferon Alfa 2a (PEG) and Ribavirin (RBV) in Treatment-Naïve Subjects with Chronic Genotype 1 Hepatitis C Virus Infection and IL28B CC Genotype (GS-US-248-0121)

Dr I J Kronborg, Dr N Arachchi.
Sponsor: Gilead

A Phase 4, Randomised, Open-label, Active-Controlled, Superiority Study to Evaluate the Efficacy and Safety of Tenofovir Disoproxil Fumarate (TDF) in Combination with Peginterferon ?-2a (Pegasys®) versus Standard of Care Tenofovir Disoproxil Fumarate Monotherapy or Peginterferon ?-2a Monotherapy for 48 Weeks in Non-Cirrhotic Subjects with HBeAg-Positive or HBeAg-Negative Chronic Hepatitis B. (GS-US-174-0149)

Dr I J Kronborg, Dr N Arachchi.
Sponsor: Gilead

A randomised, double blind, controlled evaluation of Tenofovir DF versus Adefovir Dipivoxil for the treatment of HbeAg positive chronic Hepatitis B (GS-US-174-0103)

Dr I J Kronborg, Dr N Arachchi.
Sponsor: Gilead

OUR RESEARCHERS

Dr Ian J Kronborg: Director of Gastroenterology Department

A/ Prof. Alex Boussioutas: Consultant Gastroenterologist

Dr Niranjan Arachchi: Consultant Gastroenterologist

Dr Alan Moss: Director Endoscopic Services

Marian Croft: Clinical Research Co-ordinator

Kerrie Curin: Research nurse

OUR RESEARCH STUDENTS

Liz Hristov: Nurse Endoscopist Trainee

OUR AWARDS AND GRANTS

Dr Allan Moss: *The 2012 leading reviewer (world-wide) for Endoscopy Journal*

Boussioutas, A (CIH) *Establishment of a biomarker to test molecular risk of Gastric Cancer.* NHMRC Project Grant APP1030980: \$806,000 (2012-2014).

Boussioutas, A (CIB) *Cancer Australia Project Grant APP1024096.* \$558,264 (2012-2014)

RESEARCH OUTPUT

PUBLICATIONS: 5
BOOK CHAPTERS: 1
PRESENTATIONS: 12

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Associate Professor Alex Boussioutas

Member of NHMRC Grant Review Panel
NHMRC Grants Reviewer
NMRC Singapore Grants Reviewer
Health Review Board of Ireland Grant Reviewer
Member and Reviewer for the Faculty 1000 Medical experts
Editorial Board: Journal of Gastroenterology and Hepatology
Member of Human Research Ethics Committee, Melbourne Health
Member of NHMRC GRP Member, Cancer Council of Victoria Hereditary Bowel Cancer Group
Examiner for Australian Medical Council

Dr Ian Kronborg

Drug & Alcohol Clinical Advisory Service for Victoria & Tasmania,
Board of management First Step Drug & Alcohol treatment agency
Melbourne Study of Hepatocellular Carcinoma (MESH)
American Society of Liver Disease (AASLD)
European Society of Liver Disease (EASL)
American society of Addiction Medicine
Gut Club Victoria
Melbourne Liver group

Dr Alan Moss

Appointed to Editorial Board of "Endoscopy" Journal for 2012-2015
Gut Club Victoria; Australian & NZ leaders Forum
Journal reviewer of: Gastroenterology, Gastrointestinal Endoscopy, Gut, Inflammatory Bowel Disease, Endoscopy and Clinical Gastroenterology & Hepatology



General Internal Medicine

OUR RESEARCH

The Department of General Medicine manages approximately 3400 inpatients annually, mainly elderly (40% aged over 80) with multiple co-morbidities and complex care needs. Often inadequate evidence supports clinical decision making for this population, even for common clinical scenarios.

In 2012 the Advanced Trainees in General Medicine undertook a number of projects primarily under the direction of Dr Harin Karunajeewa. Cohorts of patients with community acquired pneumonia, chronic obstructive airways disease exacerbations, congestive cardiac failure, acute coronary syndromes, undifferentiated fever and sepsis, urinary tract infection, musculoskeletal problems and bariatric surgery were studied with a focus on patient population characteristics, determinants of adverse outcomes and where possible to critically evaluate our management compared to existing consensus guidelines.

Analysis of management and outcomes before and after implementation of hospital guidelines for both community acquired pneumonia and congestive cardiac failure, conditions was specifically carried out to evaluate effectiveness of these interventions in terms of improving patient outcomes.

Information gained was used to generate more specific research questions, future prospective studies and modified interventions to improve effectiveness and efficiency in patient management. This has already informed the projects for 2013, including collaboration with Monash University's college of pharmacy on a multi-centre study of hospital prescribing practice for acute coronary syndromes.

In an NHMRC Partnership Grant (Deakin, Flinders & Melbourne Universities, Victorian and South Australian Governments and Diabetes Australia) Professors Janus and Ebeling work on a gestational diabetes register to ensure long term follow up and an intervention (MAGDA) to decrease progression of GDM mothers to type 2 diabetes. Julie Nunn is RA for the Sunshine site.

EPI-FIND - Epigenetic Factors in Diabetes - is a spin off project currently underway to identify epigenetic (environmental) effects on gene expression in the development of diabetes during pregnancy. Prof Peter Ebeling and Prof Edward Janus are investigators with University of Melbourne and Deakin University colleagues and the subjects are drawn from Western Health Gestational Diabetes and Non Gestational Diabetes Clinics.

Professor Janus also works on MDPS (NHMRC Melbourne Diabetes Prevention Project) and Diabetes Australia's Life! : Program for Diabetes Prevention in 25,000 Victorians. He collaborates on The Hong Kong Cardiovascular Risk Factor Study, which he set up in 1994 -1996. It has completed its 12 year follow up and resulted in many publications.

Dr Karunajeewa continues international collaborative research on malaria and clinical research into infectious diseases in the Asia-Pacific region. As part of a collaboration with the Walter and Eliza Hall Institute (WEHI) and the World Health Organisation, and a grant from the Asia-Pacific malaria elimination network, he is working on evaluations of drug treatments for malaria in Vanuatu and the Solomon Islands that have the ultimate eventual aim of completely eliminating malaria from some of the small countries of the South Pacific. With collaborators from the University of Melbourne and WEHI he is developing novel diagnostic systems for diarrhoeal disease and gastrointestinal pathogens.

RESEARCH HIGHLIGHTS

Best Poster Prize Award: Tim Bennett for: An audit of patients managed for musculoskeletal problems by the General Medical inpatient service at Western Health. Internal Medicine Society of Australia and New Zealand Annual Scientific meeting, Queenstown, New Zealand, September 2012

Runner-up Best Poster Prize: Adam Pastor for: A Retrospective Cohort Audit of Acute Coronary Syndromes managed by an Australian General Medicine Unit. Internal Medicine Society of Australia and New Zealand Annual Scientific meeting, Queenstown, New Zealand, September 2012.

OUR RESEARCHERS

Professor Edward Janus: Head of Unit

Dr Harin Karunajeewa: Physician,
Director of Research: Division of Medicine

Dr Mahesan Anpalahan: Physician

Dr Elke Hendrich: Director of Physician
Training

Dr Albert Leung: see under Rheumatology

Dr Craig Nelson: Physician: see under
Nephrology

Associate Professor Vicki Levidiotis:
Physician: see under Nephrology

Dr Kushma Nand: Physician: see under
Nephrology

Dr Adrian Tramontana: Physician: see under
Infectious Diseases

Dr Adam Pastor: Advanced Trainee

Dr Julia Girdwood: Advanced Trainee

Dr Adrian Chazan: Advanced Trainee

Dr Timothy Bennett: Advanced Trainee

Dr Eloise Williams: Basic Trainee

Ms Julie Nunn: Research assistant NHMRC
MAGDA Study (Mothers after gestational
diabetes in Australia)

OUR GRANTS AND AWARDS

**NHMRC Project Grant 2009-11 (extended
to 2013):** JA Dunbar, RC Carter, ED Janus,
SK Lo, P Reddy, E Vartianen, *Life! vs
Usual Care in Diabetes Prevention: a Critical
Evaluation*. \$833,125

NHMRC Partnership Grant 2010-14:
Dunbar JA, Best JD, Janus ED, Carter R,
Oats J, Reddy P, Carnie J and Phillips P.
Ebeling P, Rando L, *Preventing Diabetes
in Pregnancy from Progressing to Type 2
Diabetes: Macro-Level System Change in
South Australia and Victoria*. \$1,292,000

Awards - see above under research
highlights.

RESEARCH OUTPUT

PUBLICATIONS: 9
BOOK CHAPTERS: 1
PRESENTATIONS: 13

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Professor Edward Janus

President Heart Research Centre Board
Melbourne
Treasurer Asian Pacific Society of
Atherosclerosis and Vascular Diseases
Associate Editor, Journal of Atherosclerosis
and Thrombosis (Japan)
Reviewer NHMRC grants
Reviewer Hong Kong Government Health
and Medical Research Fund
Reviewer Australian Journal of Rural
Health, BMC Public Health, Internal Medicine
Journal, Journal of Diabetes Investigation,
Medical Journal of Australia, Nutrition
Journal, Preventive Medicine
Chairman of Review of Australian
Community Centre for Diabetes ACCD for
Victoria University, Melbourne 2012

Dr Mahesan Anpalahan

Reviewer for Age (The Journal of the
American Ageing Association), Clinical
Medicine Insights, Experimental Gerontology
and Internal Medicine Journal.

Dr Harin Karunajeewa:

Academic Journal Editor: PLoS One
A/Prof Vicki Levidiotis: President Australian
and New Zealand Society of Nephrology
(2010-2012)
Chair of the Local Organizing Committee
for the 2014 ANZSN Meeting
KHA (Kidney Health Australia) Medical
and Scientific Advisory Committee (MSAC)
FRACP STAC/SAC Committee.

032 Geriatric Medicine

The Department of Geriatric Medicine has undertaken a number of research activities in 2012 aimed at improving the care of older people admitted to Western Health. The focus is on the key Geriatric Medicine syndromes, which include falls and fractures, delirium, dementia, incontinence, pressure wounds and frailty. All of these syndromes are associated with functional decline, prolonged periods of hospitalisation and the risk of transition to residential care.

We work collaboratively with nursing and allied health and have been actively involved in the Better Care of Older People (BCOP) projects and the development and implementation of pressure care guidelines for Western Health. In 2013 the focus is on the management of delirium. We are also involved with the care of older people in the community as part of the Aged Care Assessment Service (ACAS). The Western Health ACAS has been instrumental in developing guidelines for the management of hoarding and squalor in association with community care providers and now provides a dedicated team of workers aimed at supporting these clients in the community.

Our registrars are actively involved in quality audits to improve current practice. In 2012 their projects included an assessment of the appropriate use of continence aids/pads, the utility of a range of pain assessment scales in the elderly including those with cognitive impairment and assessment of cognitive impairment in people above the age of 65 with Chronic Kidney Disease.

OUR RESEARCH

Delirium Point Prevalence Audit
Dr Claire McKie, Dr Stephanie Ward

OUR RESEARCHERS

Associate Professor Jenny Schwartz:
Head, Geriatric Medicine

Dr Mahesan Anpalahan: Consultant Geriatrician

Dr Mark Johannesen: Consultant Geriatrician

Dr Sook Meng Lee: Consultant Geriatrician

Dr Claire McKie: Consultant Geriatrician

Dr Stephanie Ward: Consultant Geriatrician

RESEARCH OUTPUT

PUBLICATIONS: 6
PRESENTATIONS: 2

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Stephanie Ward, Member of ANZSGM 2014 ASM Conference Convening Committee

Mahesan Anpalahan: Reviewed manuscripts for *Experimental Gerontology*, *Age (The Journal of the American Ageing Association)*, *Clinical Medicine Insights*, and *Internal Medicine Journal*.

Over 40% of Western Health patients are aged over 80, with multiple co-morbidities and complex care needs.



033 Infectious Diseases

Research within the Infectious Diseases unit has focused on topics directly relevant to the population of Western Melbourne whom we care for, as well as some collaborative work with other centres. Research in the form of quality assurance audits provides stimulus for improvement of care based on local patterns of disease, such as review of current antimicrobial therapy guidelines.

Future directions include a more active research component to our service by participating in multi-centre research organisations such as the Australasian Society for Infectious Diseases clinical research networks, as well as ongoing audit of activities at Western Health.

OUR RESEARCH

ESBL Infections at Western Health

Dr Cristina Mateevici, Dr Stephen Guy, Dr Garry Lane, Dr Adrian Tramontana

Collaborator: Melbourne Health Pathology Department

Staph Aureus Endocarditis in Injecting Drug Users

Dr Ohide Otome, Dr Stephen Guy, Dr Garry Lane, Dr Adrian Tramontana

Feasibility of Early Discharge Strategies for Febrile Neutropenia in Australian Healthcare Facilities: Outcomes of a Victorian Organisational Readiness Assessment

Dr Stephen Guy, Dr Michael Green, Dr William Renwick, Ms Angela Mellerick

Collaborator: Peter MacCallum Cancer Institute

OUR RESEARCHERS

A/Prof Garry Lane: Clinical Services Director (Medicine, Cancer and Emergency), Head of Unit Infectious Diseases and Infection Control

Dr Stephen Guy: Infectious Diseases Physician

Dr Adrian Tramontana: Infectious Diseases and General Medicine Physician

Dr Cristina Mateevici: Infectious Diseases Registrar

Dr Ohide Otome: Infectious Diseases Registrar

RESEARCH OUTPUT

PUBLICATIONS: 3

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Stephen Guy: Member of Australasian Society for Infectious Diseases Clinical Trials Network Steering Group on Infections in Diabetic Feet.

Adrian Tramontana: Member of Australasian Society for Infectious Diseases Clinical Trials Network Steering Group on Tuberculosis.



034 Intensive Care Unit

The Western Health Intensive Care Unit (ICU) continues to achieve its objective of promoting excellence in critical care medicine through collaborative clinical research focused on improving patient centred outcomes. The ICU is proud to have been involved with the completion and notable publication of the C.H.E.S.T study in the New England Journal of Medicine in October 2012. The study was the largest randomised controlled trial ever conducted in intensive care units. This research work has provided an important contribution to fluid resuscitation management of the critically ill on a global scale, adding evidence to suggest that crystalloids have significant advantages over certain colloids in fluid therapy.

Western Health remains consistent strong recruiters in trials coordinated by the Australian and New Zealand Intensive Care Society (ANZICS) Clinical Trials Group (CTG). The CTG is highly recognised and acknowledged internationally for providing high quality, fundamental research which has a high impact on direct clinical practice. Our commitment to improving research links was also strengthened in 2012 by the employment of a Data Manager for the ICU. This role has helped to markedly improve the clinical data that Western Health submits to the ANZICS CORE database, a quality assurance program which provides audit and analysis of the performance of Australian and New Zealand intensive care units. This invaluable database guides epidemiological research, and a greater understanding of critical illness management and outcomes.

We have maintained collaborative study partnerships with Emergency Medicine, Physiotherapy and the Blood Bank service. We also continue to participate in commercial pharmaceutical studies and investigator driven studies. Severe sepsis remains the predominant area of research leading into 2013.

CURRENT RESEARCH

ANZICS Clinical Trials Group Point Prevalence Program (PPP) – 2012

A/Prof. Craig French.

Collaborators: ANZIC Research Centre

A randomised blinded placebo controlled trial of hydrocortisone in critically ill patients with septic shock (the ADRENAL study).

A/Prof. Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain, Dr Zia Ansari

Collaborators: The George Institute for Global Health National Health and Medical Research Council (NHMRC) and Health Research Council of New Zealand (HRCNZ)

Crystalloid versus Hydroxyethyl Starch trial (C.H.E.S.T) A Multi-centre randomised controlled trial of fluid resuscitation with starch (6% hydroxyethyl starch 130/0.4) compared to saline (0.9% sodium chloride) in intensive care patients on mortality.

A/Prof. Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain

Collaborators: ANZICS Clinical Trials Group, The George Institute for Global Health

HEAT: A clinical trial investigating the effect of paracetamol on the outcomes of Intensive Care patients with fever and suspected infection.

A/Prof. Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain

Collaborators: The George Institute for Global Health; HRCNZ, Waikato Medical Research Foundation

Organ Donation Understanding Family Decisions.

Dr Forbes McGain

Collaborators: St Vincent's Hospital, Melbourne

STandaRd Issue TrANsfusion versuS Fresher red blood cell Use in intensiVe carE (TRANSFUSE) – a randomised controlled trial.

A/Prof Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain, Dr Zia Ansari

Collaborators: ANZICS Clinical Trials Group, NHMRC, HRCNZ

A Trial of Early Activity and Mobility in ICU (the TEAM study).

Dr Elizabeth Skinner, Ms Clare Holdsworth, Mrs Samantha Bates

Collaborators: Intensive Care Foundation; ANZIC Research Centre, Monash University

OUR RESEARCH

A Multi-Centre Randomised Controlled Trial of early Goal Directed Therapy in Patients presenting to the Emergency Department with Severe Sepsis in Australasia (the ARISE study).

A/Prof Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain, Dr Anne-Maree Kelly, Dr Menon Shymon

Collaborators: ANZICS Clinical Trials Group, Australasian College for Emergency Medicine (ACEM) Clinical Trials Group

When a person has severe sepsis they have a severe infection and their body reacts to the infection, which is known as inflammation. This inflammation can affect important organs in the body such as the heart and lungs. The purpose of this research project is to find out if a treatment plan known as "Early Goal Directed Therapy" is different from standard treatment for patients with severe sepsis. In Australia, standard treatment involves treatment with fluids given into a vein and medications to support the blood pressure and keep the heart working properly. A study performed at one hospital in the United States has shown that giving standard fluids and medications for the treatment of severe sepsis works better when a strict protocol is followed. This new way of administering these standard

treatments is called early goal directed therapy (EGDT). Recruitment started in November 2009 and is ongoing with 400 patients left to recruit. To date, Western Health has recruited 15 patients. This research is integral to guiding physicians' practice and management of treatment patients with severe sepsis.

A Multicentre, Randomised, Double-Blind, Placebo-controlled Phase IIb Study to Compare the Efficacy and Safety of Two Dosing Regimens of Intravenous Infusions of CytoFab (AZD9773) in Adult Patients With Severe Sepsis and/or Septic Shock.

Dr Forbes McGain, A/Prof Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Zia Ansari

Sponsored Drug Trial - Astra Zeneca

Severe sepsis is an important cause of morbidity and mortality in ICUs despite current treatment and management. The primary objective of this study is to evaluate the effect of two different doses of AZD9773 (recombinant TNF alpha) versus placebo on ventilator free days over 28 days in patients with severe sepsis and/or septic shock. The recruitment period for this study was limited, and Western Hospital was able to recruit 1 patient. This was a phase II study in 300 patients. This research will aim to help improve mortality and morbidity rates in patients with severe sepsis through developing a potential new treatment option.

A Randomised, Double-blind, multi-centre placebo controlled trial of dexmedetomidine for patients with agitation and delirium in the intensive care unit (the DAHLIA study)

Dr John Mulder, A/Prof Craig French, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain

Collaborators: Prof Michael Reade (Royal Brisbane and Women's Hospital); ANZICS Clinical Trials Group; Hospira Pty Ltd

DaHLIA is a multicentre, placebo-controlled trial comparing dexmed-etomidine and placebo for the management of ICU-associated delirium and agitation. Although

it is currently used 'off-label' for intubated non-surgical patients for durations longer than 24 hours, and at higher doses than those approved, such use is not widespread and is supported by minimal evidence. This trial aims to determine the effectiveness and safety of dexmedetomidine compared to placebo, when added to standard care, for the treatment of ICU-associated delirium and agitation in patients currently undergoing sedation and mechanical ventilation. Both dexmedetomidine and normal saline placebo will be given by continuous infusion. Recruitment is ongoing and to date we have recruited 1 patient. This research is integral to guiding physicians practice and management of patients with delirium and to further define the use of dexmedetomidine.

OUR RESEARCHERS

A/Professor Craig French: Director of Intensive Care

Dr John Mulder: Associate Director of Intensive Care

Dr Sathyajith Velandy Koottayi: Intensivist

Dr Forbes McGain: Intensivist/Anaesthetist

Dr Zia Ansari: Intensivist

Samantha Bates: Research Coordinator

Anna Tippett: Research Coordinator

Anna Lidgett: Data Manager

OUR AWARDS AND GRANTS

Project Grant - TRANSFUSE Study. Co-Investigator - A/Prof Craig French National Health and Medical Research Council \$2,761,870 Health Research Council of New Zealand \$775,723

Project Grant - Erythropoietin in Traumatic Brain Injury EPO-TBI Study. Co-Investigator - A/Prof Craig French National Health and Medical Research Council \$1,848,475; Victorian Neurotrauma Initiative \$1,416,130 (2009-2014)

Funding Grant: Funding to Establish the Centre for Research Excellence for Patient Blood Management in Critical Illness and Trauma at Monash University - (The Blood-CRE). Co-Investigator - A/Prof Craig French National Health and Medical Research Council (NHMRC) \$2,500,000 (2012-2017)

ANZCA Project Grant: A Life-cycle Assessment of Reusable and Single-use Laryngoscopes. Dr Forbes McGain, Australian and New Zealand College of Anaesthetists (ANZCA) \$10,200 (2012)

RESEARCH OUTPUT

PUBLICATIONS: 6
PRESENTATIONS: 3

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Craig French

Treasurer, ANZICS Clinical Trials Group
Co Chair Australian and New Zealand Society of Blood Transfusion (NHMRC/National Blood Authority) Expert Advisory Group & Clinical/Consumer Reference Group
Co Chair, Management Committee, EPO-TBI study
Member, Management Committee TRANSFUSE study
McGain FM: Member, Melbourne Health Human Research Ethics Committee
Sathyajith Velandy Koottayi: Member, Western Health Low Risk Ethics Panel

Joseph Epstein Centre for Emergency Medicine Research

The Joseph Epstein Centre for Emergency Medicine Research focuses on research questions relevant to the clinical care of emergency patients. Some of our work is conducted solely at Western Health but a significant proportion is done in partnership with other researchers both in Australia and internationally. Current collaborations include University of Sheffield UK, Aalborg University Denmark and Lund University Sweden.

There have been three major streams of work in 2012:

1. Validating approaches to early rule out of acute coronary syndrome in Emergency Department chest pain patients
2. Arteriovenous blood gas agreement in patients with severe respiratory disease
3. Improving the quality of nursing handover in ED.

OUR CURRENT RESEARCH

A multicentre randomised controlled trial of early goal directed therapy in patients presenting to the Emergency Department with severe sepsis in Australasia (the ARISE trial)

Associate Professor Craig French, Dr John Mulder, Dr Sathyajith Velandy Koottayi, Dr Forbes McGain, Professor Anne-Maree Kelly, Dr John Loy

Collaborators: ANZ Intensive Care Society Clinical Trials Group

Venous Versus Arterial Blood Sampling in Exacerbations of COPD; A Prospective Cohort Study

Professor Anne-Maree Kelly.

Collaborators: Dr Dominic Shaw, Nottingham University Hospitals NHS Trust

Nursing Handover in ED

Professor Anne-Maree Kelly, Sharon Klim,

Collaborators: Dr Debra Kerr, Professor Terry McCann, Victoria University

The DAVROS project

Professor Steve Goodacre (UK), UK and HK collaborators, Professor Anne-Maree Kelly

Collaborators: University of Sheffield

Blood Cultures in Community Acquired Pneumonia

Dr Mark Patterson, Prof Anne-Maree Kelly

Clinical decision rules for investigation for subarachnoid haemorrhage

Professor Anne-Maree Kelly, Dr Simon Edwards

OUR RESEARCH

Arteriovenous Agreement of Blood Gases in Patients Undergoing Non-invasive Ventilation in ED

Professor Anne-Maree Kelly, Sharon Klim

This study is exploring the potential role of venous blood gas analysis as a substitute for arterial sampling in patients requiring non-invasive support of ventilation. If successful, we may be able to reduce the number of painful arterial tests that patients undergo.

Validating Approaches to Early Rule out of Acute Coronary Syndrome in Emergency Department Chest Pain Patients

Professor Anne-Maree Kelly, Sharon Klim

Validating approaches to early rule out of acute coronary syndrome in emergency department chest pain patients. This project is exploring whether heart attack can be ruled out more quickly in patients coming to ED with chest pain. If successful, this work could result in shorter hospital stays; good for the patient and for the hospital.

RESEARCH OUTPUT

PUBLICATIONS: 8
BOOKS CHAPTERS: 3
PRESENTATIONS: 5

OUR RESEARCHERS

Professor Anne-Maree Kelly: Director, JECEMR

Sharon Klim: Research Co-ordinator

Kerrie Russell: Research Officer (Part-time)

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Anne-Maree Kelly

Senior Clinical Advisor to the Emergency Care Improvement and Innovation Clinical Network (Dept Health Victoria).

Editorial Boards of Journals: Annals of Emergency Medicine; Emergency Medicine Australasia; Hong Kong Journal of Emergency Medicine

On a typical day 336 patients attend one of Western Health's three Emergency Departments.



In 2012, the Department of Nephrology at Western Health has continued to participate in national trials co-ordinated by the Australasian Kidney Trials Network adding to the existing trials the IMPROVE trial. Associate Professor Nigel Toussaint, as the national lead investigator of this trial, secured \$1.58 Million NHMRC funding for this project in 2012. The Western Health RCT eMAN Anaemia: Chronic Kidney Disease (CKD) which aimed to assess the effect of a synchronised process of administration of Erythropoiesis-stimulating agents on anaemia endpoints in CKD patients finished in December 2012. Hui Liew our advanced trainee, presented preliminary results at the Western Health Research Week, and won the Neville Yeoman's Prize. The Primary Care project eMAP CKD: VIC a collaborative project between Western Health, Kidney Health Australia (KHA), General Practice Victoria (GPV), Macedon Ranges & North Western Melbourne Medicare Local (MRNWML), funded by the Department of Health in Victoria Renal Health and Aboriginal Health Clinical Networks, commenced in 2012 with greater than 20 Primary Care practices recruited, and more than 300,000 active patients. Funding was also secured in 2012 for a pilot telehealth project in Home Dialysis through the Department of Health, Victoria.

OUR RESEARCH

Favoured Trial: A randomised, double-blind, placebo-controlled, factorial-design trial to assess the effect of aspirin and fish oil (omega-3 fatty acids) in the prevention of early thrombosis in arterio-venous fistulae in patients with Stage IV or V chronic kidney disease requiring haemodialysis

A/Prof. Vicki Levidiotis

Collaborators: Australasian Kidney Trials Network

Honeypot Trial: A randomised, controlled trial of exit site application of MEDIHONEY™ Antibacterial Wound Gel for the prevention of catheter-associated infections in peritoneal dialysis patients. The HONEYPOT Study

A/Prof. Vicki Levidiotis

Collaborators: Australasian Kidney Trials Network

EMAN - Anaemia Pilot Project: An Open Labelled Randomised Control trial of the synchronized Electronic MANagement of Anaemia in Chronic Kidney Disease (CKD) compared to Usual Care Anaemia Management

Dr Craig Nelson

Collaborators: Roche Pharmaceuticals

CERA in CKD; Meta-analysis Kushma Nand.

Collaborators: Cochrane Renal Group

Effects of type and dose of phosphate binders on metabolic acidosis in patients with End Stage Kidney Disease on maintenance haemodialysis: A retrospective observational study
Craig Nelson.

Collaborators: RMH Department of Nephrology

Changes in QTc intervals and QTc dispersion with dialysis between long break (LB) (72-hour interdialytic period) versus short break (SB) (48-hour interdialytic period)
Craig Nelson.

Collaborators: Department of Cardiology, Western Health

The IMPROVE-CKD trial: A randomised, double-blind, placebo-controlled trial to assess the effect of phosphate reduction with lanthanum carbonate on arterial compliance and vascular calcification in patients with chronic kidney disease stages 3-4

National Lead Researcher: A/Prof Nigel Toussaint PI: Dr Craig Nelson

Collaborators: Australasian Kidney Trials Network

This project aims to test if phosphate binders without calcium have an impact on vascular calcification before the commencement of dialysis therapy. Cardiovascular disease is the number one cause of death in patients with kidney disease and this may be contributed to by vascular calcification.

Favoured Trial: A randomised, double-blind, placebo-controlled, factorial-design trial to assess the effect of aspirin and fish oil (omega-3 fatty acids) in the prevention of early thrombosis in arterio-venous fistulae in patients with Stage IV or V chronic kidney disease requiring haemodialysis

A/Prof. Vicki Levidiotis

This project aims to assess if aspirin and fish oil will help prevent thrombosis of dialysis fistulas. People on Dialysis have improved outcomes if they commence dialysis with a functioning fistula rather than temporary access.

EMAN-Anaemia Pilot Project: An Open Labelled Randomised Control trial of the synchronized Electronic MANagement of Anaemia in Chronic Kidney Disease (CKD) compared to Usual Care Anaemia Management
Craig Nelson.

This project aims to improve CKD Anaemia targets by a synchronised electronic process to enable people to be cared for in their community rather than hospital outpatients. This project aims to prove that better care can be delivered and be more cost-effective if we monitor our patients by efficient processes in the community.

EMAP-CKD VIC: Electronic Mapping and Assistance to Primary Care in CKD Detection and Management in Victoria - A Pilot project

Craig Nelson

Collaborators: Department of Health Victoria/MRNWML/KHA/GPV

This project aims to detect unrecognised CKD in the community and provide management strategies via outreach from the health service to primary care using electronic processes, to improve CKD care in Primary Care. Western Health has a large burden of Chronic Disease in its catchment; this project aims at establishing processes to reduce the burden and late presentation of kidney disease to our health service, and to establish a WH catchment CKD data repository.

HUG Project - Home dialysis Utilising Telehealth Guidance

Craig Nelson, Department of Health Victoria

This project aims to increase support and monitoring of patients by using telehealth solutions to enable patients to safely perform home dialysis. We aim to provide real-time answers to questions via the telehealth solution in multiple different languages and to offer real-time video links for technical trouble shooting 24 hrs per day to further assist people in our community.

OUR RESEARCHERS

Dr Craig Nelson: Director

A/Prof Vicki Levidiotis: Staff Specialist

A/Prof Nigel Toussaint: Staff Specialist

Dr Sandra Crikis: Staff Specialist

Dr John Katsoulous: Staff Specialist

Dr Kushma Nand: Staff Specialist

Dr Rosemary Masterson: Staff Specialist

Dr Solomon Cohney: Staff Specialist

Dr Hui Liew: Advanced Trainee, Nephrology

Dr Leny Hidayati: Advanced Trainee, Nephrology

Debbie Broomfield: Renal Research Coordinator

Marie McIntosh: eMAP CKD: VIC Project Manager

Catherine Blackmore: HUG Project Manager

Connie Karschimkus: eMAN Anaemia Project Manager

OUR RESEARCH OUTPUT

PUBLICATIONS: 11
PRESENTATIONS: 9

OUR AWARDS AND GRANTS

IMPROVE Trial. PI: Nigel Toussaint, NHMRC -\$1,500,000 (2012-2015)

HUG Project - Home Dialysis Utilising Telehealth Guidance Department of Health Victoria. **PI: Craig Nelson** RHCN \$250,000 (2012-2013)

EMAN-Anaemia Pilot Project: An Open Labelled Randomised Control Trial of the Synchronized Electronic Management of Anaemia in Chronic Kidney Disease (CKD) compared to Usual Care Anaemia Management. PI: Craig Nelson. Roche Pharmaceuticals Research Grant \$350,000 (2010-2012)

Investigator Initiated Multi-centre Randomised Controlled Trial of Lanthanum Carbonate in Chronic Kidney Disease **PI: Nigel Toussaint.** Shire Pharmaceuticals Research Grant: \$1.5 Million (2010 - 2013)

EMAP-CKD VIC: Electronic Management and Assistance to Primary Care in CKD Detection and Management in Victoria - A Pilot project.

PI: Craig Nelson. Department of Health Victoria - RHCN and Aboriginal Health - \$560,000 (2011 - 2013)

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Craig Nelson

Executive, Asian Pacific Society of Nephrology
Department of Health Renal Clinical network - Strategic Action Group and Renal Leadership Group
Kidney Health Australia - KCAT Committee
Kidney Health Australia - Guidelines for Primary Care Development Group
Victorian Health Monitor - Renal Survey Development Group:
Journal Reviews: cJASN, Nephrology
Grant Reviews: NHMRC

Vicki Levidiotis

Australian and New Zealand Society of Nephrology President
Chair of the Local Organizing Committee for the 2014 ANZSN Meeting
KHA (Kidney Health Australia) Medical and Scientific Advisory Committee (MSAC)
FRACP STAC/SAC Committee
Journal Reviewers/Editorial membership in 2012: Reviews for Kidney International, Nephrology, American Journal of Transplantation
Grant Reviews: NHMRC, FRACP Jacquot, KHA Grants, DART Grants

Nigel Toussaint

Chair SAC Nephrology.
HUG (Home Dialysis Utilising Telehealth Guidance and Monitoring) Project - a telehealth pilot in home dialysis at Western Health

Telehealth solutions make home dialysis possible for more Victorians



In an Australian first, Western Health's Department of Nephrology is using innovative telehealth solutions to provide greater levels of support and monitoring, enabling more patients in Victoria to undertake home dialysis.

The Home Dialysis Utilising Telehealth Guidance and Monitoring Project (HUG) project was made possible by a \$250,000 home dialysis project grant from the Victorian Government.

"HUG is based on a UK model which found that using telehealth for cardiology patients resulted in a huge reduction in Emergency Department presentations and hospitalisation. We're hoping to replicate that here," Western Health's Head of Nephrology, Associate Professor Craig Nelson said.

"Telemedicine is in its infancy in Australia, and has recently been identified as a national health priority within the National Broadband Network rollout agenda and with the creation of Medicare Benefit Scheme item numbers for telemedicine consults.

"Current rates of home dialysis in Australia are greater than most other countries, although rates differ significantly between states in Australia, with Victoria achieving lower rates than elsewhere," A/Prof Nelson said.

HUG Project Officer, Catherine Blackmore, has been recruiting the first patients to take part in the HUG pilot.

"Nothing that a person ever comes across in their life prepares them for dialysis, particularly dialysis in the home. People worry about what the impact might be if they do something 'wrong'. There are lots of things they need to be aware of, for instance their weight and their blood pressure, and there are lots of decisions that need to be made on a daily basis, particularly in those early stages.

"For most patients, hospital-based dialysis involves travelling to a hospital three times a week with treatment lasting four hours. Factoring in travel time and the possibility that they may not feel 100 per cent after the session, and many patients will tell you it can knock out the entire day for them three times a week. It can make maintaining employment very difficult, if not impossible, for some patients," Catherine said.

"Patients who dialyse at home often have better outcomes. They can fit their treatment around their own lifestyle needs, feel much more in control of managing their condition and avoid coming into hospitals

"I really believe in this project. It's about making sure those patients who are competent to undertake home dialysis are also confident to do it. The HUG project, I believe, bridges that gap beautifully.

"They might be feeling like they've grasped how it works when they do their home dialysis training in the hospital but all of a sudden they're home, and they don't know what to do.

"It's about building a patient's confidence over a period of time using the telehealth device. HUG gives patients the security of knowing that every day their health and well being are being monitored.

"There are also home health questionnaire that have been developed, with simple 'yes' or 'no' answers. This will help us assess on a daily basis whether patients need us to contact them or whether they are tracking along well. If we need to we can video conference them, ask more detailed questions and decide if they need to come into the hospital," Catherine said.

042 Neurology

Western Health Neuroscience Research Unit conducts clinical research in various disciplines of neurology including stroke, multiple sclerosis, epilepsy and movement disorders. It is one of the busiest clinical trial centres in acute stroke research in Australia. Many patients have been recruited in international, randomised, double blind trials, including acute stroke clinical trials and trials in multiple sclerosis. The Unit's research activity ranges from collaboration in international research trials to laboratory based cellular work. The basis for the research is our drive to improve clinical service and patient outcomes. We have been enriched by visiting international experts and researchers, including Professor Werne Hacker from Germany. The strong collaboration with Asia Pacific region, Sri Lanka and India in particular, has been maintained and we plan to embark on several collaborative research projects in the future. In addition we will continue to foster collaborations with the leading local academic institutions, including University of Melbourne, Victoria University and Monash University, to strengthen neurosciences research in the Western region.

CURRENT RESEARCH

START- EXTEND Study: International, multicenter, randomised, double blind study on extending time window up to nine hours on the basis of imaging based ischemic penumbra.

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

START- PREPARE Study: Biomarker study arm in acute ischemic stroke in parallel to START –EXTEND

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

START-EXTEND IA: International, multicenter, randomised, double blind study on imaging based IA therapy in acute ischemic stroke.

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

ENCHANTED Study: International, multicenter, randomised, double blind study on 0.6mg/Kg IV tPA versus 0.9mg/Kg and acute blood pressure lowering in acute ischemic stroke study

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

TASTE Study: Imaging based, international, multicenter, randomised, double blind study on novel thrombolytic agent TNK in acute ischemic stroke

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

TIPS: Cluster randomised trial on implementation of thrombolysis in acute ischemic stroke

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

AFFINITY Study: International, multicenter, randomised double blind trial on SSRI and acute stroke rehabilitation

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo

RENEW Study: An observational study on multiple sclerosis patients who are being treated with Rebif new formula as the immunotherapy

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo

IRIS Study: An international, multicenter, double blind trial on insulin resistance, acute cerebral vascular events and pioglitazone therapy, a collaborative study with Yale University , USA

Tissa Wijeratne, Co- researchers
Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo

AVERT Study: An international, double blind, multicenter trial in acute very early rehabilitation in acute stroke

Tissa Wijeratne, Co- researchers Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

WESHENS Study: Western Health Neurophobia survey among medical students and RMOs

Tissa Wijeratne, Co-researchers Leon Yap, Ms Mei Yan Ngun

Good Mood Study; a randomised study on motivational interviewing and prevention of post stroke depression

Debra Kerr, Justine Mizen, Elizabeth Mackey, Tissa Wijeratne

Gait and Balance in minor strokes and TIAs Study; an observational study in gait and balance issues in minor strokes and TIAs

Frances Bachelor, Sandra Petty, Tissa Wijeratne

Western Health Central Post Stroke Pain Study (an observational study on CPSP and neurophysiological features in CPSP)

Tissa Wijeratne, Ashwini Chandra, Natalie Teasdale, Robert D Helme

Western Health Post Stroke Sexual Function Study (an observational survey on post stroke sexual function among western health patients with a view to find out the epidemiology of post stroke sexual dysfunction and key determinants in a cohort of patients,

Tissa Wijeratne, Mahi Jazinararchchi, Debra Kerr, Sherisse Celestino, Sena Gocuk, Surangi Somaratne, Kar Yan Lo, Cynthia Cheng

Diabetic Neuropathic Pain Study: an observational study on Diabetic neuropathic pain (clinical and neurophysiological features) among diabetes outpatients

Tissa Wijeratne, Henry Zhao, Kar Yan Lo, Hasanthi, Surangi Somaratne, Cynthia Cheng

VST- Mastoid Air Cell Abnormalities Study: an observational study on venous sinus thrombosis and radiological abnormalities in mastoid air cells to see whether there is a cause /effect relationship

Tissa Wijeratne, Mahi Jazinararchchi, John Fitzgerald, Mobin Masters

Western Health ICH Study: a retrospective, observational study on acute ICH cases from 2006-2012 with a view to validate the SMASH-U classification of ICH

Tissa Wijeratne, Kar Yan Lo

Western Health Neurocysticercosis Study: A retrospective, observational study on patients with neurocysticercosis who admitted to Western health from 2000-2012

Tissa Wijeratne, Surangi Somaratne, Hasanthi

Interact-2: A randomised, multicenter, international, double blind study on acute blood pressure lowering in acute ICH

Tissa Wijeratne, Co- researchers Victor Chong, Zelko Matkovic, Simon Li, Grant Scott, Surangi Somaratne, Natalie Teasdale, Sena Gocuk, Kar Yan Lo, Elizabeth Mackey

The utility of 2 channels EEG system for ICU EEG monitoring

Simon Li

Comparing rostral and caudal PPN stimulation for gait and balance in PD

Wesley Thevathasan

Pull test study assessing impact of PPN stimulation for postural instability in PD

Wesley Thevathasan

Forceplate study assessing impact of PPN stimulation for balance impairment in PD

Wesley Thevathasan

Pallidal stimulation for cervical dystonia - clinical study

Comparing 60Hz Vs 130Hz DBS for primary dystonia - a multicentre RCT

Wesley Thevathasan

Epilepsy and Bone Health - Investigating Cellular Electrophysiology

Sandra Petty

Neurology (cont.)

OUR RESEARCHERS

Dr Tissa Wijeratne: Director, Neuroscience Research Unit

Ms Natalie Teasdale: Research Coordinator

Ms Sherisse Celestino: Research Coordinator

Ms Sena Gocuk: Research Coordinator

Ms Hasanthi: Research Assistant

Ms Surangi Somaratne: Research Fellow

NRU is fully supported by all the neurology consultants, registrars and advanced trainee in the Department of Neurology, Western Hospital.

OUR AWARDS AND GRANTS

Dr Tissa Wijeratne, Dr. Frances Bachelor and Dr Sandra Petty *Gait and Balance Study in the TIA Clinic Cohort at Western Health* National Stroke Foundation \$20,000

Dr Tissa Wijeratne and Dr Debra Kerr, Victoria University *Good Mood Study (a randomised study in motivational interviewing and prevention of depression among acute stroke patients at Stroke Unit, Western Hospital)*. Victoria University early carrier research grant: \$29,000 (2012)

Good Mood Study (a randomised study in motivational interviewing and prevention of depression among acute stroke patients at Stroke Unit, Western Hospital). National Stroke Foundation: \$20,000 (2012)

Dr Sandra Petty: *MBC Postdoctoral Research Fellowship*. RACP Servier Barry Young Fellowship in Neuroscience: \$50,000

Dr Sandra Petty: *Thwaites Gutch Fellow in Physiology*. Ormond College

Wesley Thevathasan: *Early career fellowship*. NHMRC (National Health and Medical Research Council, Australia): \$215,738 (2013-2017)

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Dr Tissa Wijeratne

Membership/ Committee Representation 2012
 Ambassador; Asia Pacific Region, World Federation of Neurorehabilitation
 Chair, Western Health Low Risk Ethics Panel
 Chair, Education committee, Stroke Society Australasia
 Chair and delegate, International Working Group for Young Neurologists and Trainees, World Federation of Neurology
 Member, Education Committee, World Federation of Neurology
 Member, Advocacy and Public Awareness Committee, World Federation of Neurology
 Member, Asia Pacific Stroke Advocacy Union
 Chair, Young Neurologists Special Interest Group, World Congress of Neurorehabilitation, 2012, Melbourne
 Chair, Geoff Donnan Stephen Davis Stroke Advocacy Leadership Forum, Asia Oceania Congress of Neurology, 2012, Melbourne
 Chair, Asia Pacific Young Neurologists and Trainees workshop, Asia Oceania Congress of Neurology, 2012, Melbourne
 Member, Education Committee, RACP, Australia
 Member, Policy and Advocacy Committee, RACP, Australia
 Membership Officer, Stroke Society of Australia
 Public Officer, Stroke Society of Australia
 Member, Education and Learning Committee, RACP (also a Member for Curriculum Development Committee, BPT, RACP Representing the Education Committee)

International Advisor, Indian Stroke Association
 Council Member, Stroke Prevention, American Stroke Association
 Editor, Parkinson's Research Review Australia
 Active Reviewer for Neurology, Neurology in Clinical Practice, Stroke, Epilepsy and Behavior, Medical Education, Journal of Clinical Neurosciences, Basal Gangli

Dr Wesley Thevathasan

International taskforce for PPN stimulation for Parkinson's disease and Progressive supranuclear palsy
 Endorsed by the International Movement Disorder Society.

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North West Academic Centre

The NorthWest Academic Centre is part of The University of Melbourne's Faculty of Medicine, Dentistry & Health Sciences. The Centre is the operational hub, incorporating staff from the Melbourne Medical School and other schools and departments at Western Hospital and the Western Centre for Health Research and Education facility (WCHRE) at Sunshine Hospital.

Research at the NorthWest Academic Centre is aligned with The Departments of Medicine, Endocrinology, and Surgery at Western Health along with collaborative partnerships with universities across Australia and at key centres around the world. The NorthWest Academic Centre is also a foundation member of The Australian Institute for Musculoskeletal Science (AIMSS).

Our research incorporates a broad range of interests including, osteoporosis, falls and fractures, vitamin D and health, diabetes mellitus, colon cancer and the genetics of cancer metastasis, health economics, the epidemiology of disease and social disparities in healthcare. We also have a growing interest in Maternal Foetal Medicine, and Paediatric Endocrinology with key appointments in 2013 supporting further research growth.

Our future research objectives are to expand our research by joining forces with Western Health and Victoria University to form the Australian Institute of Musculoskeletal Science, and also to continue to perform collaborative research with the research team involved in the NHMRC Centre for Research Excellence in Sun and Health, with members being associated with QUT and QIMR in Queensland, ANU in Canberra and the University of Melbourne at Western Health. We are also consolidating our links with Victoria University to expand our research into colon cancer.

OUR CURRENT RESEARCH

Risk Factors for aged care assessment: Development of predictive tool

Haslinda Gould

Human Osteoblast Biology on Novel Implantable Scaffolds

Tania Fernandes

Elucidating biomarkers of bone resorption and exercise by NMR and MS based metabolomics

John Sheedy

Osteo-cise: Strong Bones for Life. An Inclusive Evidence-based Multi-component Exercise, Falls Prevention and Osteoporosis Education/Awareness Program

Jenny Gianoudis

Sunlight exposure and risk of type 2 diabetes

Catherine Shore-Lorenti

Barriers and enablers to treatment and prevention of fracture: Exploring knowledge, beliefs, attitudes and cultural models of osteoporosis

Renee Otmar

Does teriparatide reverse osteonecrosis of the jaw in patients with cancer? A randomised controlled trial

le-Wen Sim

Effects of low or high dietary calcium intake on bone density and fractures in a population-based longitudinal cohort

Belal Khan

The cost and quality of life associated with fractures at sites other than hip, spine and wrist

Yu Zhang

Born small and exercise; can exercise in those who were born small normalise bone and glucose homeostasis?

P.Ebeling, Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne

Osteocalcin and glycaemic control

P Ebeling

Collaborators: Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne; Austin Health

Vitamin D, physiological and biomechanical assessments, and risk of falls in osteoarthritis

K. Sanders, P.Ebeling

Collaborators: Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne

The associations between characteristics of sarcopenia, vitamin D and falls in community-dwelling older adults

D.Scott, K.Sanders, P.Ebeling, E. Skinner

Aetiology and Prognosis of Femoroacetabular Impingement in skeletally mature and immature individuals

C.Fary, P.Tran, J.O'Donnell

Collaborators: The University of Melbourne, St Vincent's Institute

The effect of moderate-intensity cardiovascular fitness training compared to standard care in people with a diagnosis of stroke: a pilot randomised controlled trial

H.Reynolds, S.Kenny, J.Tillyard, E.Skinner.

Collaborators: Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne

Objective assessment of physical activity in older adult populations and associations with health and physical performance.

D.Scott

Collaborators: Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne

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North West Academic Centre (cont.)

The validity and reliability of a 3-dimensional body scanner for evaluating body composition.

P. Ebeling, D.Scott.

Collaborators: Institute for Sport, Exercise and Active Living (ISEAL), Victoria University; The University of Melbourne

Role of the Eph/Ephrin cell signalling system in the progression and metastasis of colon cancer

P Senior, S Chan

Collaborators: Victoria University

OUR RESEARCHERS

Professor Peter Ebeling: Chair NorthWest Academic Centre

Associate Professor Kerrie Sanders: Principal Scientist

Dr Sharon Brennan: Research Fellow

Dr David Scott: Postdoctoral Fellow

Dr le-Wen Sim: Endocrinologist Consultant

Professor Steven Chan: Professor of Surgery

Dr Paul Senior: Senior Research Fellow

Mr Ian Faragher: Colorectal Surgeon

Mr Felix Behan: Plastic Surgeon

A/Prof Trevor Jones: Clinical (Associate Professor)

A/Prof Steven McLaughlin: Clinical (Associate Professor)

A/Prof Graeme Thompson: Clinical (Associate Professor)

A/Prof Val Usatoff: Clinical (Associate Professor)

A/Prof Arun Chandu: Clinical (Associate Professor)

OUR RESEARCH STUDENTS

Haslinda Gould: PhD

Tania Julie Fernandes: PhD

John Robert Sheedy: PhD

Jenny Gianoudis: PhD

Renee Otmar: PhD

Belal Ahmad Khan: PhD

Yu Zhang: PhD

Catherine Shore-Lorenti: PhD

Dr le-Wen Sim: PhD

Dr Cherng Huei (Joe) Kong: Master of Surgery

OUR RESEARCH OUTPUT

PUBLICATIONS: 60
PRESENTATIONS: 3

OUR AWARDS AND GRANTS

S. Brennan
Gibson Scientific Research Award, Australian: *RM Sex bias in referral for bone densitometry in adults aged 50 years and over: 2003-10.* Association of Gerontology: \$3,128 (2011-12)

Strategic Grant (Early Career Grant): *Sex bias in referral for bone densitometry: 1991-98 to 2003-10.* The University of Melbourne: \$38,173 (2011-12)

Project Grant: *The association between socioeconomic status and utilization of total hip and knee joint replacement across Australia.* Arthritis Victoria: \$19,862 (2011-12).

Project Grant: *The association between socio-economic status and total joint replacement across Australia.* 2013 Arthritis Australia Grant-in-aid funded by Zimmer Australia: \$10,000 (2012)

Victorian Orthopedic Association Research Grant: *Social and geographic associations with shoulder joint replacement Australia-wide 2006-2011* Victorian Orthopedic Association: \$9,100 (2012)

Dyason Fellowship: *Social and ethnic disparities in the uptake of bone density testing and osteoporosis therapies pre and post-fracture.* The University of Melbourne: \$5,000 (2012)

NHMRC Training Fellowship (1012472) *Investigating the psychosocial and socioeconomic predictors of osteoporosis.* NHMRC: \$290,032 **S.Brennan and G. Nicholson**

K.Sanders
The Australian Study of Cost and Utilities Related to Osteoporotic Fractures. Merck, Sharp & Dohme (Australia) Ltd. \$150,000

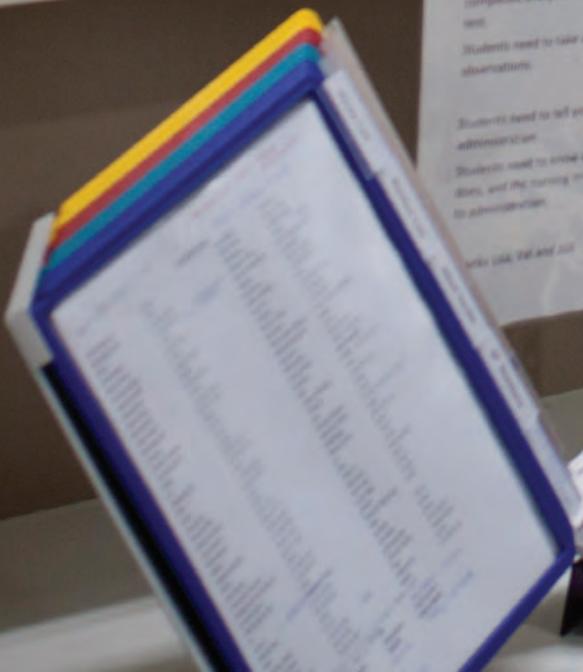
P. Ebeling
NHMRC Project Grant (1030371)
P. Ebeling, G.Borromeo and J.Seymour: *Does Teriparatide Reverse Osteonecrosis of the Jaw in Patients with Cancer?* A RCT (2012-2014) NHMRC: \$385,000

NHMRC Project Grant (1022660).
A.Carr, J.Hoy, P.Ebeling, N.Pocock. *Bisphosphonate Therapy with Zoledronate or Tenofovir Switching to Improve Low Bone Mineral Density in HIV-Infected Adults: a Randomised Trial.* NHMRC: \$687,807 (2012-2014)

Ward 3F - Reception

Nurse U
Mana

No Nursing Students are able to give medications if they have chosen the relevant paperwork to show they have completed and passed their medication test.
Students need to take a manual set of observations.
Students need to tell you the 5 rights of administration.
Students need to know what the drug does, and the nursing implications and to administer.
links: 044 334 and 333



North West Academic Centre (cont.)

NHMRC Centre for Research Excellence in Sun and Health M.Kimlin, D.Whiteman, R.Lucas, C.Sinclair, R.Neale, P.Ebeling, P.Youl, L.Gordon, M.Janda

NHMRC Centre for Research Excellence in Sun and Health. NHMRC: \$2,379,750 (2010-2015)

NH&MRC Project Grant (1046681).

R.Neale, B.Armstrong, P.Ebeling, D.English, M.Kimlin, A.Venn, J. van der Pols, R. O'Connell. *D-Health: A randomised trial of vitamin D for prevention of cancer and mortality.* NHMRC: \$2,930,705

AIMSS Seed Funding.

C.Fary, P.Tran, J.O'Donnell, N.Sims, A.Takla, *Aetiology and Prognosis of Femoroacetabular Impingement in skeletally mature and immature individuals.* AIMSS: \$6,650 (2012-2013)

Collaborative Research Network Start-up Funds A.Hayes, P.Levinger, R.Begg,

A.Petersen, K.Sanders, F.Cicuttini. *Optimal exercise and nutritional strategies to improve bone/muscle strength and gait function for falls prevention.* Victoria University. \$18,000 (2012-2013)

Collaborative Research Network Start-up Funds G.McConell, G.Kaur, P.Ebeling,

M.Wlodek, A.McAinch, P.Sinnayah. *Born small and exercise (Can exercise in those who were born small normalise bone and glucose homeostasis?)* Victoria University; \$15,000 (2012-2013)

AIMSS Seed Funding D.Scott, E.Skinner, P.Levinger, T.Haines, P.Ebeling, K.Sanders.

The associations between characteristics of sarcopenia, vitamin D and falls in community-dwelling older adults. AIMSS: \$20,000 (2012-2013)

The Faculty Of Health, Engineering & Science Collaborative Research Grants

Scheme K Nurgali, P Senior. *The role of EphB4 receptor in the development and spread of colorectal cancer* Victoria University: \$15,000 (2013)

MSD-ANZBMS Clinical Research Excellence Award,

B.Khan. *Long term high dietary calcium intake and its association with fractures and cardiovascular events in a population based prospective cohort study.* 1st Asia-Pacific Bone and Mineral Research Meeting and the ANZBMS 22nd Annual Scientific Meeting.

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Peter Ebeling

Medical Director, Osteoporosis Australia
Councillor, American Society for Bone and Mineral Research
Board Member, International Osteoporosis Foundation, Geneva
Co-Chair, American Society for Bone and Mineral Research Annual Scientific Meeting
President Endocrine Society of Australia
Scientific Journal Editorial Boards
Associate Editor, Journal of Bone and Mineral Research
Member, Editorial Board, Osteoporosis International
Member, Editorial Board, Clinical Endocrinology (Oxford)

Kerrie Sanders

Editorial member, Journal Bone and Mineral Research

049 Nursing

For the first time, there was a dedicated session for nursing research during Research Week in 2012. This was an exciting presentation of nursing and midwifery research activities ranging from breastfeeding, to falls, to intranasal medication. Successful projects include: Intranasal fentanyl for women in childbirth; effectiveness of bedside handover in the emergency department, evaluation of medication endorsement for Division 2 Registered Nurses, and falls in the sub-acute care setting.

Focus group methodology evaluated two specific education programs: 'STRIPE Simulation Based Education Program' and the 'Best Care for Older People (BCOP) Nursing Projects Program'. The STRIPE program was developed as a multi-faceted inter-professional program to prepare undergraduate students from different health disciplines for practice, using simulation learning approaches. Two focus groups and a survey included undergraduate students (medical, nursing, physiotherapy, social work) who had participated in the STRIPE program. Participants were very positive about the STRIPE program and three main themes were identified: enhanced self-awareness about response to real life situations, opportunity to practice with interdisciplinary health team members, and increased confidence to practice after graduation.

Evaluation of the BCOP program found that participants recognised significant personal growth as a direct consequence of enrolment in the program, including enhanced leadership and self-confidence skills. Support from leaders within the organisation encouraged the participants to manage projects that had the potential to improve the quality of healthcare for patients within and beyond their clinical environment.

Receipt of two competitive grants (Stroke Foundation Grant and Victoria University Internal Grant) will support the study titled: 'Effects of early motivational interviewing on post-stroke depressive symptoms: Pilot randomised controlled trial of the Good Mood Intervention program.' This study will evaluate the effectiveness of a nurse-led motivational interviewing technique to prevent mood disturbances after acute stroke.

CURRENT RESEARCH

[Standardised handover to improve nursing care in the Emergency Department.](#)

Debra Kerr, Klim S, Kelly A.M, Terence McCann, Sallie Wood.

Collaborators: Nurses Board of Victoria, Victoria University

[Effects of early motivational interviewing on post-stroke depressive symptoms: Randomised controlled trial of the Good Mood Intervention program.](#)

Debra Kerr, Terence McCann, Justine Mizen, Elizabeth Mackey, Tissa Wijeratne, Victoria University, Western Health, National Stroke Foundation.

[A study of post stroke sexual function.](#)

Dr. Mahi Jasinarachchi, Dr. Toby Cumming, Dr. Debra Kerr, Dr. Kar Yan Lo, Ms. Sherisse Celestino, Dr. Manoj Pathirage. Victoria University, Western Health

[The STRIPE Project - A Collaborative Interprofessional Simulation-Based training program.](#)

Janet Beer, Clare Holdsworth, David Mai, Debra Kerr. Western Health, Victoria University

[An Evaluation of the Best Care for Older People \(PCOP\) Nursing Projects Program](#)

Kathy Kirby, Kate Mangion, Debra Kerr. Western Health, Victoria University

[Prevalence of Falls for Hospitalised Elderly Patients in Sub-Acute Care](#)

Ghada Elias, Debra Kerr, Doug Mill. Western Health, Victoria University

[How Do Women Achieve Wellness After Breast Cancer Treatment?](#)

Susan Cipolla, Debra Kerr, Leanne Storer, Terence McCann. Western Health, Victoria University,



OUR RESEARCH

Move to the Cube: Developing a Framework for Nursing Handover in the Emergency Department: An Individualised and Systematic Approach

Debra Kerr, Sharon Klim, Ann-Maree Kelly, Terence McCann, Sallie Wood. Nurses Board of Victoria, Victoria University

This project aims to develop, implement and evaluate a standardised nursing handover model for the ED setting. Preliminary evidence suggests that bedside handover is an acceptable method of performing handover for patients in the ED. In addition, improvements were observed for standards of nursing care and documentation. Bedside nursing handover is a relatively new strategy in EDs. There is a lack of research that has been carried out in relation to handover in the ED setting.

Prevalence of Falls for Hospitalised Elderly Patients in Sub-Acute Care

Ghada Elias, Debra Kerr, Doug Mill. Victoria University

The primary aim of this study was to prospectively measure the prevalence of falls and falls risk factors for hospitalised elderly patients in sub-acute care. A secondary aim was to measure the use of appropriate footwear during ambulation for patients during hospitalisation.

Falls have become the highest reported causes of unintended harm and leading cause of death for elderly patients. There is a lack of evidence in the Australian literature on prevalence of falls and factors contributing to falls in the sub-acute care setting. Previous research has found that inappropriate footwear is associated with an increased risk of falling for elderly patients.

Evaluation of the Best Care for Older People Program.

Kathy Kirby, Kate Mangion, Debra Kerr

The aim of this study was to explore the opinions of candidates regarding the 'Best Care of Older People: Nursing Projects Program in relation to professional development, program structure and redesign activities.'

Western Health has embedded the 'Best Care for Older People Everywhere' toolkit to inform models of care via the Best Care for Older People (BCOP) Nursing Projects Program. This program aims to achieve two key requirements: to minimise functional decline for older people and professional development to support workforce capacity building

OUR RESEARCHERS

Dr Debra Kerr: Senior Lecturer; Honours Coordinator, Victoria University

Ms Louise McKinlay: Manager, Education, Victoria University

Mr Doug Mill: Director of Nursing, Williamstown Hospital

Ms Ghada Elias: Registered Nurse; Ward 2C

Justine Mizen: Nurse Unit Manager; Ward 3A

Elizabeth Mackey: Registered Nurse; Ward 3A

Davina Taylor: Clinical Nurse Consultant

Kathy Kirby: Project Manager, Best Care for Older People, Division of Sub-acute & Aged Care

Kate Mangion: Manager Best Care for Older People, Division of Sub-acute & Aged Care

Janet Beer: Simulation Coordinator

OUR RESEARCH STUDENTS

Ms Ghada Elias: Bachelor of Nursing (Honours)

Ms Susan Cipolla: Bachelor of Nursing (Honours)

OUR PUBLICATIONS

OUR RESEARCH OUTPUT

PUBLICATIONS: 6
PRESENTATIONS: 3

OUR AWARDS AND GRANTS

PROJECT GRANT

Dr Debra Kerr Professor Terence McCann: *Effects of early motivational interviewing on post stroke depressive symptoms.* Victoria University: \$29,989 (2012)

Dr Debra Kerr, Professor Terence McCann: *Effects of early motivational interviewing on post stroke depressive symptoms* National Stroke Foundation: \$20,000 (2012-2013)

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Debra Kerr

Member, Australian Nursing Federation (ANF)
Deputy Chair, Western Health Low Risk Ethics Panel
Member, Victoria University Human Research Ethics Committee
Member, Victoria University Post Graduate Research Committee
Member, Research Advisory Committee - Western Health.

Oncology Haematology Unit

Cancer Services at Western Health is a founding member of the clinical trial management organisation Cancer Trials Australia. Our other important clinical trial partnerships include, the Australian Gastrointestinal Trials Group, Australia and New Zealand Breast Cancer Trials Group, International Breast Cancer Study Group, Australia and New Zealand Germ Cell Trials Group and Australasian Leukaemia & Lymphoma Study Groups.

Research within Cancer Services at Western Health focuses on the predominant tumour streams; Colorectal, Genitourinary, Lung, Upper Gastrointestinal, Gynaecological, Breast and Haematology. In 2012, 23 clinical trials were open to accrual across these tumour streams. These trials were both commercially sponsored and unsponsored scientific group studies. 125 patients were enrolled and participated in clinical trials within this department; 80% of the clinical trial participants were colorectal cancer patients.

Cancer Services at Western Health received a Victorian Cancer Agency grant in 2012, the aim of which is to increase our clinical trial capacity. The grant has been utilised to increase clinician's time as principal investigators, including developing clinicians as first time principal investigators, increasing the research clinical and administrative staff, and to embark on clinical research that is not supported by commercial sponsorship. The grant is specifically aimed at consolidating the clinical trial work within the colorectal cancer stream, and to build the capacity of the Haematology tumour stream to perform clinical trials.

Our future objectives are to increase our research capacity and provide access to clinical trials for all Oncology and Haematology patients within the health network.

OUR RESEARCH

Circulating Tumour DNA as a Marker of Complete Pathological Response and Long Term Outcome for Locally Advanced Rectal Cancer Treated with Pre-operative Chemoradiotherapy

Dr Jeanne Tie, Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai

This study aims to further develop circulating tumour DNA (ctDNA) as a specific and sensitive blood biomarker test for colorectal cancer. The current tools for disease assessment in colorectal cancer, serum CEA and radiological imaging have significant limitations. The stage II colon cancer cohort allows exploration of ctDNA as a marker of residual cancer, the efficacy of adjuvant therapy and early detection of cancer recurrence. The stage IV colorectal cancer cohort allows further exploration of ctDNA as an early indicator of treatment failure. This will be the first large prospective study evaluating the use of serial ctDNA samples, with comprehensive patient data being collected using mostly existing resources, where all pathology samples are reviewed and where patients are managed according to standard protocols. These studies lay the foundation for future studies exploring changes in treatment based on ctDNA results. The persistence of tumour DNA in the blood following surgery for primary bowel cancer promises to be a very sensitive and specific marker of residual cancer, which would permit more informed decisions regarding chemotherapy treatment and benefit. In patients with advanced (stage IV) colorectal cancer, ctDNA could allow early assessment of treatment resistance, allowing earlier cessation of ineffective and often costly therapy and an early switch to an alternative strategy. ctDNA has many potential applications across the spectrum of cancers.

Circulating Tumour DNA as a Marker of Complete Pathological Response and Long Term Outcome in Colorectal Cancer Liver Metastases

Dr Jeanne Tie, Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai

The potential roles of ctDNA as a non-invasive biomarker in colorectal cancer will be explored utilising prospective blood sample collection and comprehensive treatment and outcome data in patients with resectable liver secondaries treated in a standardized fashion. Serial measurements of ctDNA will address the value of ctDNA as a marker for occult disease and early detection of recurrence. The current approach of recommending 6 months of chemotherapy to patients undergoing resection of liver metastases, with the hope of eradicating any occult disease in some patients is very inefficient. The vast majority of treated patients are undertaking 6 months of therapy from which they will not benefit. The ability to accurately define patients that may not need treatment and those that do would have many potential advantages.

A Randomised Double-blind Phase III Trial of FOLF(HA)Iri vs FOLFIRI for Second or Third Line Therapy in Irinotecan-naïve Patients With Metastatic Colorectal Cancer

Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai, Dr Jeanne Tie

This study aims to see if the addition of Hyaluronic acid to Irinotecan reduces the toxicity and adverse event profile whilst maintaining optimal disease response. The aim of the study is to improve treatment regimens for patients who have progressed after first line treatment for metastatic cancer.

CATChEz: Continuous Access to advanced and metastatic renal cell Carcinoma therapy with Everolimus post pazopanib treatment

Dr Shirley Wong, Dr David Campbell

The aim of this trial is to assess the safety and efficacy of sequential treatment with pazopanib, followed by everolimus, for advanced and metastatic renal cell carcinoma. Improved treatment outcomes for patients with Metastatic renal cell carcinoma

A randomised Phase III Trial to assess response adapted therapy using 2-[F-18]fluoro-2-deoxy-d-glucose positron emission tomography (FDG-PET) imaging in patients with newly diagnosed, advanced Hodgkin Lymphoma

Dr William Renwick, Dr Duncan Carradice

Circulating Tumour DNA as a Marker of Complete Pathological Response and Long Term Outcome in Stage II and Metastatic Colorectal Cancer

Dr Jeanne Tie, Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai

A phase III prospective, two-cohort non-randomised, multi-centre, multinational, open label study to assess the safety of assisted- and self-administered subcutaneous Trastuzumab as adjuvant therapy in patients with operable her2-positive early breast cancer
Professor Michael Green, Dr Shirley Wong, Dr Catherine Oakman, Dr David Campbell, Dr Frances Barnett

Randomised Comparative Study Of Folfox6m Plus Sir-Spheres® Microspheres Versus Folfox6m Alone As First Line Treatment In Patients With Non-resectable Liver Metastases From Primary Colorectal Carcinoma (Other IDs: STX0206).

Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai, Dr Jeanne Tie

Evaluate the Prognostic Role of Inflammatory Markers in Patients with Metastatic Colorectal Cancer Treated with Bevacizumab (Avastin™) [ASCENT]

Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai, Dr Jeanne Tie

An open-label phase IIIb study of regorafenib in patients with metastatic colorectal cancer (CRC) who have progressed after standard therapy
Associate Professor Peter Gibbs, Dr Ben Tran, Dr Suzy Kosmider, Dr Jayesh Desai, Dr Jeanne Tie

A randomised phase II double-blind placebo-controlled study of regorafenib in refractory Advanced Oesophago-Gastric Cancer (AOGC) INTEGRATE
Associate Professor Lara Lipton, Dr Sumitra Ananda

Phase II trial to evaluate the potential molecular profile of biliary tract cancer and also examine the clinical benefit and safety of panitumumab, cisplatin and gemcitabine in the treatment of biliary tract cancer (TACTIC)
Associate Professor Lara Lipton, Dr Sumitra Ananda

Phase 3, Multicenter, Randomised, Open-Label, Parallel-Group Study Of The Efficacy & Safety Of Lenalidomide (Revlimid®) Vs. Chlorambucil as First-Line Therapy for Previously Untreated Elderly Patients with B-Cell Chronic Lymphocytic Leukaemia
Dr William Renwick, Dr Duncan Carradice, Dr Nicholas Murphy

An Australasian, Phase III, Multicentre, Randomised Trial Comparing Lenalidomide Consolidation Vs No Consolidation in Patients with Chronic Lymphocytic Leukaemia and Residual Disease Following Induction Chemotherapy CLL6
Dr William Renwick, Dr Duncan Carradice, Dr Nicholas Murphy

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Oncology Haematology Unit (cont.)

A Randomised, Controlled, Double-Blind Phase III Trial to Compare the Efficacy, Safety and Pharmacokinetics of GP2013 vs. MabThera® in Patients with Previously Untreated, Advanced Stage Follicular Lymphoma

Dr William Renwick, Dr Duncan Carradice, Dr Nicholas Murphy

A Phase II, Double-Blind, Placebo-Controlled, Randomised Study Evaluating the Safety and Efficacy Of Carboplatin/ Paclitaxel and Carboplatin /Paclitaxel / Bevacizumab With and Without GDC-0941 in Patients With Previously Untreated Advanced Or Recurrent Non-small Cell Lung Cancer

Dr Dishan Gunawardana, Dr Catherine Oakman, Dr Jeanne Tie, Dr Suzy Kosmider

A double blind placebo controlled randomised trial of pf-804 in patients with incurable stage iiib/iv non-small cell lung cancer after failure of standard therapy for advanced or metastatic disease BR.26

Dr Dishan Gunawardana, Dr Catherine Oakman, Dr Jeanne Tie, Dr Suzy Kosmider

A Randomised, Open-label, Phase 3 Study of Carfilzomib Plus Dexamethasone vs. Bortezomib Plus Dexamethasone in Patients With Relapsed Multiple Myeloma (Other ID's: 2011-003, 2012-000128-16)

Dr William Renwick, Dr Duncan Carradice, Dr Nicholas Murphy

A Phase 3, Randomised, Double-Blind Trial of Pegylated Liposomal Doxorubicin (PLD) Plus AMG 386 or Placebo in Women With Recurrent Partially Platinum Sensitive or Resistant Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Cancer

Dr Shirley Wong, Dr David Campbell, Dr Sumitra Ananda

An Open-Label Phase I/II Study of GSK2110183 in Combination with Carboplatin and Paclitaxel in Subjects with Platinum-Resistant Ovarian Cancer

Dr Shirley Wong, Dr David Campbell, Dr Sumitra Ananda

A Phase 3, Randomised, Double-Blind Trial of Weekly Paclitaxel Plus AMG 386 or Placebo in Women With Recurrent Partially Platinum Sensitive or Resistant Epithelial Ovarian, Primary Peritoneal or Fallopian Tube Cancers TRINOVA 1

Dr Shirley Wong, Dr David Campbell, Dr Sumitra Ananda

A Randomised, Open Label Phase 3 Study of MM-398 versus 5-Fluorouracil and Leucovorin in Patients With Metastatic Pancreatic Cancer

Associate Professor Lara Lipton, Dr Sumitra Ananda

OUR RESEARCHERS

Professor Michael Green: Director of Cancer services

Dr Dishan Gunawardana: Deputy Director of Cancer Services

Dr Sumitra Ananda: Associate Site Director Cancer Trials Australia, Consultant Oncologist

Dr S T Fan: Consultant Oncologist

Dr J C Ding: Consultant Oncologist

A/Professor Peter Gibbs: Consultant Oncologist

A/Professor Lara Lipton: Consultant Oncologist

Dr Shirley Wong: Consultant Oncologist

Dr Jayesh Desai: Consultant Oncologist

Dr Jeanne Tie: Consultant Oncologist

Dr Suzanne Kosmider: Consultant Oncologist

Dr William Renwick: Consultant Haematologist

Dr Duncan Carradice: Consultant Haematologist

Dr Nicholas Murphy: Consultant Haematologist

Dr Ben Tran: Consultant Oncologist

Dr Catherine Oakman: Consultant Oncologist

Dr Richard De Boer: Consultant Oncologist

Dr David Campbell: Consultant Oncologist

Dr Frances Barnett: Consultant Oncologist

Dr Sheau Wen Lok: Oncology Research Fellow

Dr Sally Greenberg: Advanced Trainee Oncology

Helen Brasier: Oncology Research Manager

Angela Baugh: Clinical Research Nurse

Catherine Morton: Clinical Research Nurse

Lisa Wilkinson: Study Coordinator

Siobhan Rainford: Clinical Research Nurse

Georgina Akers: Clinical Research Nurse

Jessica Mifsud: Clinical Research Nurse

Nathan Hope: Clinical Research Nurse

OUR RESEARCH OUTPUT

PUBLICATIONS: 28
PRESENTATIONS: 5



OUR AWARDS AND GRANTS

Dr Jeanne Tie - *Circulating Tumour DNA as a Marker of Complete Pathological Response and Long Term Outcome for Locally Advanced Rectal Cancer Treated with Pre-operative Chemoradiotherapy.* National Health and Medical Research Council (NHMRC): \$592,407(2011-2013)

Lara Lipton, Oliver Sieber - *Inherited Genetic Variants as prognostic markers for colorectal cancer.* NHMRC: \$575,000 (2011-2013)

Lara Lipton, Oliver Sieber, Dmitri Moeodov - *Discovery of Colorectal Cancer Subtype Associated Tumour Suppressor Genes Using Next - Generation Sequencing and High Throughput Functional Genomics.* Cancer Australia: \$450,000 (2012-2014).

William Renwick, Duncan Carradice - *Analysis and establishment of an integrated clinical service model for Haematology services at Western Health.* Western Central Melbourne Integrated Cancer Services (WCMICS): \$24,000 (2012)

Ben Tran - *Using the tumour associated inflammatory response to personalize treatment in colorectal cancer.* DW Keir Fellowship: \$175,000 (2012-2014).

Western Health Oncology/ Michael Green - *Lymphoedema Feasibility Project.* Department of Health Grant: \$150,000 (2012-2013)

Western Health Oncology/ Michael Green - *Patient Pathways Project (Gynaecology, Genitourinary & CNS)* Victorian Comprehensive Cancer Centre Grant: \$75,000 (2012-2013).

Western Health Oncology/ Michael Green - *Research – Trial Capacity Building Project (Colorectal & Haematology).* Victorian Cancer Agency Grant: \$250,000 (2012-2014).

Western Health Oncology/ Michael Green - *Day Oncology Re-Design Project.* Roche Grant: \$15,000 (2012-2013).

Western Health Oncology/ Michael Green - *Analysis and establishment of an integrated clinical service model for Haematology services at Western Health.* WCMICS Grant: \$24,000 (2012-2013).

Western Health Oncology/ Michael Green - *Integrating practice across hospital and community settings by the establishment of a multidisciplinary Palliative Care Symptom Control Model.* WCMICS Grant: \$50,000 (2012-2013).

Western Health Oncology/ Michael Green - *Development and piloting of a model of care for the follow-up of cancer survivors following completion of active treatment.* WCMICS Grant: \$135,000 (2012-2013).

Western Health Oncology/ Michael Green - *Development of a clinical information system for Western Health Cancer Services – Ascribe.* WCMICS Grant: \$140,000 (2012-2013).

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Lipton, L

Reviewer for: Journal of Clinical Oncology; JNCI; Human Mutation
Member of COSA, MOGA, ASCO, In SIGHT, AGITG, AMA

Carradice, D

- Low grade lymphoma/ CLL disease committee group – Australasian Leukemia and Lymphoma Group



Victorian Cancer Agency Grant enables greater participation in cancer trials

In 2012 Western Health welcomed the award of funding from the Victorian Government as part of the Victorian Cancer Agency's Clinical Trial Capacity Building Grants program.

Professor Michael Green, Director Oncology at Western Health, was awarded \$250,000 to increase Western Health's capability to conduct research that can be put into practice at the bedside, and enable participation in more trials in the Western Region. This will be done by expanding Western Health's existing research programs and promoting developing tumour streams.

"The aim of the grant is to provide funds to develop an infrastructure so that clinical trials can be further developed at Western Health and in the Western region," said Professor Green.

"To this end, we are focusing on two tumour streams, one is colorectal and the other is a new stream of haematology. The aim is to increase the number of patients recruited to clinical trials - often clinical trials with a high degree of sophistication - which will be done here at Western Health.

"The purpose of doing these clinical trials is obviously to offer patients newer medications, the best types of treatment according to international standards but also to provide a high degree of quality for our cancer treatments.

"Cancer treatments are developed by investigating new medications and new strategies in clinical trials, and those of us who participate in clinical trials feel that we are offering patients the latest developments in the care of their disease."

Western Health and Peter Mac are two of eight members of the Victorian Comprehensive Cancer Centre (VCCC), a \$1 billion initiative which aspires to be one of the best cancer centres in the world.

058 Orthopaedic Unit

The Orthopaedic Unit at Western Health is actively involved in clinical research. Our goal is to advance orthopaedic care through seeking answers and resolutions that will ultimately impact the diagnosis, treatment and quality of life for the orthopaedic patients. Research is an integral part of any department for continuing improved patient care and is pivotal in achieving our vision of providing better health for our community. It also allows patients the opportunity to participate in the trialling of new procedures and devices.

There were 7 research projects during 2012; a couple which were presented at seminars and conferences. The position of the research coordinator was created to meet the growth in clinical research within the unit in the future, which translates the demands for ethics applications, project management, grant applications and data management.

CURRENT RESEARCH

RCT-Immobilisation of ORIF Distal Radius

Narelle Watson, Phong Tran
(Physiotherapy, Orthopaedics)

Developing online MCQ Database for Orthopaedic Training

Peter Moore, Phong Tran

Prospective correlation between MRI and Hip Arthroscopy

Lucas Annabell, Phong Tran, Vahid Master, Alex Rhodes

The Effects of Emu Oil on Patients Suffering from Joint Pain

Rekha Ganeshalingham, Phong Tran

Assessment of the Quality of Web-based Information on Bunions

Yew Ming Chong, Phong Tran

Orthofracs - Registrar Training Website

Phong Tran, Adam Levy (AOA, Orthopaedics)

Popart Project

Virginia Plunkett, Phong Tran

MSA Bone Remodelling Study

Phong Tran, Justin Lade, Richard Freeman, Brett Jackson, Robert Pianta, Ray Crowe, Simon Talbot, Chris Haw, Rags Unni, Ish Hussaini. Orthopaedics; Global Orthopaedics

OUR RESEARCH

Aetiology and Prognosis of Femoroacetabular Impingement in Skeletally Mature and Immature Individuals

Cam Fary

An abnormally shaped femoral head with a bony bump (or Cam Lesion) inside a normal spherically shaped acetabular socket will cause impingement as it goes through a range of motion. This is known as Femoroacetabular Impingement (FAI) and it increases the risk of early damage to the labrum and cartilage. FAI is thought to be a factor in the early onset of osteoarthritis and ultimately to early total hip replacement. Advances in hip arthroscopy allow this bump to be successfully removed using minimally invasive techniques with excellent outcomes. As a result younger symptomatic patients that are skeletally immature are being treated. In the skeletally immature the femoral bump that is routinely removed contains the open upper femoral epiphysis. An open growth plate is capable of forming bone and is hypothesised as a cause of FAI. Despite this theory there has been no histological and immunological research into the growth plate and its relationship to the formation of the femoral bony "bump".

Pre and Post Operatively Gait Analysis and Pressure. Do patients' gait improve?

Mr Phong Tran

Collaborators: A Prof. John O'Donnell (St. Vincent's Private Hospital); A Prof. Natalie Sims (St. Vincent's Institute/ University of Melbourne); A Prof Amir Takla - Department of Physiotherapy, University of Melbourne

This research has not been performed internationally yet to our knowledge. FAI is associated with early onset arthritis. Advances in surgery have allowed us to treat skeletally immature patients. This gives us the ability to examine the impinging bony bump before it has turned to bone, i.e. assess possible causes for the bump formation. This will give us the power to predict and hopefully develop preventative strategies to avoid formation of the bump. Long term outcome studies will enable us to assess prognosis after treatment.

Orthopaedic Unit Website Portal

Liam Halliday, Phong Tran

Communicating efficiently and effectively throughout an orthopaedic team is the key to ensuring consistency in practice across campuses, and resident rotations. A surgical team handbook is an out-dated, inaccessible and un-editable tool that for years been the mainstay of communication to a new member of a surgical unit.

We designed a simple, easily editable website portal to meet the growing demands of a high turnover, education and research rich orthopaedic unit. The portal gives residents access to arthroplasty protocols, pre-admission guidelines, a rolling handover, and direct links to online orthopaedic textbooks. Registrars can access our trauma guidelines, an up-to-date handover, consignment orthopaedic instruments and prostheses, surgical techniques and consultant contact details.

This can be accessed from any computer, tablet or smartphone and can also be edited by members of the orthopaedic team. A surgical unit website portal goes beyond a digital handbook, it offers an outstanding method for developing consistent patient pathways, increasing resident resources, improving research, and is extremely useable, accessible and editable.

Patient Reported Outcome Measures (PROMs)

Amy Gibbens, Phong Tran

To apply validated and appropriately selected Patient Reported Outcome Measures (PROMs) to patients undergoing Orthopaedic procedures, to assess functional outcome, symptom relief, quality of life (QoL) and ultimately treatment success from the patients' perspective. Whilst our primary objective is patient-focused care through ongoing audit of symptom relief, function and QoL measures, our second objective is to build an extensive information database for future research. The information collated will allow analysis of the effect of patient factors and demographics on pathological processes, best treatment practice, prognosis and future practices.

Using this project as a platform, our future directive is to incorporate PROMs on a national level into the AOA National Joint Registry, for use by all in the orthopaedic field. Collating a PROM database will allow auditing and evaluation of patient outcomes following orthopaedic procedures to ensure the above five points are met. Additionally, it will encourage surgeon self-evaluation and allow Australian orthopaedic surgeons to compare results on a world scale.

OUR RESEARCHERS

Mr Phong Tran: Head of Orthopaedic Unit, Orthopaedic Consultant

Mr Cam Fary: Orthopaedic Consultant

Mr Justin Lade: Orthopaedic Consultant

Mr Richard Freeman: Orthopaedic Consultant

Mr Brett Jackson: Orthopaedic Consultant

Mr Simon Talbot: Orthopaedic Consultant

Mr Chris Haw: Orthopaedic Consultant

Mr Robert Pianta: Orthopaedic Consultant

Mr Raymond Crowe: Orthopaedic Consultant

Mr Ish Hussaini: Orthopaedic Consultant

Mr Rags Unni: Orthopaedic Consultant

Dr Rekha Ganeshalingham: Orthopaedic Registrar

Narelle Watson: Coordinator Advanced Practice Allied Health

Dr Amy Gibbens: Resident

Dr Peter Moore: Orthopaedic Registrar

Dr Lucas Annabell: Resident

Liam Halliday: Orthopaedic Registrar

Brett Moirera: Intern

RESEARCH OUTPUT

PUBLICATIONS: 3
PRESENTATIONS: 9

OUR AWARDS AND GRANTS

AIMSS Seed Funding Camdon Fary: *Aetiology and Prognosis of Femoroacetabular Impingement in Skeletally Mature and Immature Individuals*, Australian Institute for Musculoskeletal Science: \$6650

Simon Talbot: *A Novel Web-support Intervention to Promote Recovery Following Anterior Cruciate Ligament Reconstruction:* \$10,000

Western Health Award-Victorian Public Healthcare Award- SILVER: Phong Tran: *OrthoAnswer*

Tass Paxinos Award for Excellence in Orthopaedic Teaching: Justin Lade (winner); Audi Widjaja (runner up)

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Chris Harris: Member of APOS, ALLARS; Review Submissions of Journals for STLR

Phong Tran: Scientific Secretary Victorian AOA

Chris Haw: Medical panels

Richard Freeman: Medical Advisory Committee Member of Essendon Private Hospital

Paediatric Emergency Medicine

Head injury in children is common. Serious head injury is a leading cause of mortality and morbidity. Clinical decision rules have been developed to reduce unnecessary CT scans. We are auditing the number of brain CTs performed in Sunshine Emergency Department and will compare CT brain rate over time. Head injury is also the focus of Coco Bernard's Monash PhD research in predictors of poor outcome in the medium to long-term.

The Extended Scope of Practice Paediatric Nurse (ESPPN) project was funded by a grant from Health Workforce Australia (HWA), and has recruited four senior nurses. The ESPPN will initiate the clinical encounter and provide management within defined guidelines. The project will be evaluated in 2013 by HWA with an aim to develop a similar role in other mixed emergency departments around Australia.

Dr Amanda Gwee undertook an audit of documentation in children under the age of three, presenting with injury to Sunshine Hospital Emergency Department. Using a novel review system, where suspicious cases were then referred to the Victorian Forensic Paediatric Medical Service for assessment, an increase in identification of suspected child abuse was identified.

Professor David Taylor of Austin Health is leading a group auditing the use of Complementary and Alternative Medicine and the use of Off-label prescribing in children presenting to the Emergency Department (ED). The Austin, Monash Medical Centre, Royal Children's Hospital and Sunshine Hospital are participating.

OUR CURRENT RESEARCH

CRIB 2 - Treatments Given: Trusha Brys

CRIB 2 - ICU Admission and ICU Management: Vi Chong

CRIB 3 - Viral Pathogens across Australia and New Zealand: Natalie Phillips

Child Concussion Study: Coco Bernard

ED Management of Head Injury - CT Audit: Rachel May

Complementary and Alternative Medication Use in Paediatric Emergency: David Taylor

Off Label Medication Use in Paediatric Emergency Medicine: David Taylor

Extended Scope of Practice Paediatric Nurse Project: David Krieser, Theresa Wilkie

Case Report - Mastoiditis (In press): Thalia Lammers, David Krieser

CRIB Study (Comparative Re-hydration in Bronchiolitis) David Krieser.

Collaborators: Ed Oakley, Meredith Borland, Jocelyn Neutze, Jason Acworth, Stuart Dalziel, Andrew Davidson, Susan Donath, Kim Jachno, Mike South, Theane Theophilos, Franz Babl

The hospital length of stay for a baby with bronchiolitis was the same for intravenous hydration and nasogastric hydration. There was no difference in complications between the two methods. It was more likely that a nasogastric tube will be inserted on the first attempt than an intravenous line.

Detecting Non-Accidental Injury in the Emergency Department

Amanda Gwee, David Krieser.

Collaborators: Anne Smith, Cate Raynor, Ben Coghlan

We audited the documentation practices in Sunshine Hospital ED for children under 3 years of age who are at greatest risk. Fortnightly review of case notes was undertaken. The quality of documentation was assessed. 47% more cases that were suspicious for physical abuse were identified.

Identification of injuries that suggest child physical abuse is an important role of the ED. While a variety of strategies have been employed, including check lists and education, improving the documentation is difficult.

Extended Scope of Practice Paediatric Nurse Project

David Krieser, Theresa Wilkie.

Collaborators: Health Workforce Australia

Experienced ED nursing staff will be trained to initially assess and manage paediatric patients with lower acuity presentations to the ED. They will work within a specific scope of practice according to developed guidelines. The development of guidelines, educational materials and clinical information will inform the development of similar roles around Australia. We hope to improve triage target time performance in the relevant ATS categories. Timely assessment of patients in the ED is associated with better care and less aggression. By establishing clinical practices for nurses working in paediatrics we will develop a skilled workforce to perform initial assessment and initiate management in lower acuity patients. This, in turn, should allow medical staff to more rapidly see higher acuity patients.

OUR RESEARCHERS

David Krieser: Paediatric Emergency Physician

Theresa Wilkie: Clinical Nurse Educator, Associate Nurse Unit Manager, Project Officer

Ilse Spillane: Paediatric Emergency Physician

OUR RESEARCH STUDENTS

Coco Bernard: PhD

Thalia Lammers: MB BS (Dutch equivalent)

Paul Joffe: Advanced Paediatric Registrar

Rachel May: Advanced Paediatric Emergency Medicine Trainee

OUR RESEARCH OUTPUT

PUBLICATIONS: 2
PRESENTATION: 2

OUR AWARDS AND GRANTS

Dr David Krieser, *Extended Scope of Practice Paediatric Nurse.* Health Workforce Australia (\$350,000)

Dr David Krieser, *Comparative Rehydration in Bronchiolitis (CRIB) Study.* Western Health Research Week Best Poster Prize (\$1,500)





Best Research Poster Prize for multicentre CRIB study

Each year Sunshine Hospital's Emergency Department sees around 20,000 paediatric patients.

Bronchiolitis, a common lower respiratory tract infection in infants, is the leading cause of hospitalisation during the first year of a child's life and can be extremely concerning for parents.

Dr David Krieser, Paediatric Emergency Physician and Director of Paediatric Education at Sunshine Hospital, was the winner of the Best Research Poster Prize during Western Health Research Week 2012, for his research comparing nasogastric hydration with intravenous hydration in infants with bronchiolitis.

"The CRIB (Comparative Rehydration In Bronchiolitis) study was a multicentre, open, randomised trial which Sunshine Hospital participated in, along with six other hospitals throughout Australia and New Zealand. The PREDICT (Paediatric Research in Emergency Departments International Collaborative) network is our major research partner" Dr Krieser said.

"The aim of the CRIB study was to establish whether nasogastric hydration (which can be easier to achieve in young children) would result in any difference in outcome to intravenous hydration which is the more typical way of achieving hydration.

"When comparing intravenous to nasogastric hydration in infants hospitalised with bronchiolitis, this study demonstrated no clinically or statistically significant difference in length of stay. For intravenous hydration, failure to initiate the assigned treatment was more likely, and initiation required more attempts to achieve success.

"This was the first randomised study comparing hydration methods in bronchiolitis. It provides evidence to support the use of nasogastric hydration rather than intravenous hydration in our community.

"While both methods of achieving hydration are safe and effective interventions for infants admitted to hospital with bronchiolitis, the fact that the insertion of nasogastric tubes appears to require fewer attempts for success will be less stressful for the infants and may assist in recovery. The risks of water intoxication with intravenous fluids will be negated," Dr Krieser said.

The Comparative Rehydration in Bronchiolitis (CRIB) was published in *Lancet Respiratory Medicine* in March 2013.

064 Pharmacy

The Pharmacy Departments of Western Health aim to support clinical practice and medication safety by participating in evidence based research, thereby aligning with the strategic priorities of Western Health. The Pharmacy service has adopted a strategy of collaboration with clinical units and tertiary institutions. This facilitates the achievement of current and relevant research, whilst continuing to strive for excellence amongst available resources.

One such project was the ongoing work around analysing institutional use of the drug libraries within Alaris IV smartpumps. This provided an insight into the practices of delivering intravenous drug infusions and provided a means of analysing the effectiveness of such technology in optimising safe medication delivery, along with potential pitfalls. Results were fed back to key stakeholders to promote best practice while the drug library was subsequently improved. This information was presented at the Society of Hospital Pharmacists Medicines Management Conference 2012, which was warmly received and is currently being considered for pharmaceutical journal publication. The intravenous infusion drug library released by Western Health was amongst the most comprehensive in Australia at that time.

The majority of other research initiatives centred around assessing and improving departmental and institutional practice. Collaboration on projects include LEAN Oncology – evaluating flow processes affecting day oncology patients to improve service efficiency and their experience within the unit, and SMART Clinic - integrating practice across hospital and community environments by the establishment of a multidisciplinary palliative care pathway involving clinical pharmacist clinic input. Another project centred on assessing the effectiveness of educational interventions on improving adherence to local community acquired pneumonia treatment guidelines in an effort to optimise rational antimicrobial prescribing.

Our future research objectives involve collaborating with relevant units in assessing clinical practice where medication and patient safety outcomes are paramount. Projects currently underway include assessing, developing and facilitating safe handling guidelines for new anti-cancer molecules for hospital personnel, and collaboration with the Medication Safety Committee to assess the completion of inpatient medication charts.

OUR RESEARCH

“Development and promulgation of safe handling and distribution guidelines for “new” anticancer molecules by hospital personnel, including pharmacy, nursing and medical personnel” - Research on handling safety of monoclonal antibodies.

Professor Michael Green, Sue Kirsas, Julie King, Kent MacMillan.

Collaborators: WCMICS, Peter MacCallum Cancer Centre

An audit of the use of a smart infusion pump's drug libraries at an Australian metropolitan hospital

Ivy Tan, Nhi Dinh, Ray Kong, Kent MacMillan and Dr Forbes McGain

Integrating practice across hospital and community environments by the establishment of a multidisciplinary palliative care pathway.

Professor Michael Green, Dr Adrian Dabscheck, Karen Court, Li-Ling Ng. WCMICS



Western Hospital Pharmacy.

An environmental improvement plan in the delivery of pharmaceutical supplies to a Victorian metropolitan hospital

Nhi Dinh; Forbes McGain (Intensive Care Department)

Improving adherence to local guidelines for community acquired pneumonia through multifaceted interventions.

Mimi Jiao, Harin Karunajeewa, Edward Janus, Stephen Guy, Garry Lane, Anne Marie Southcott, Kent MacMillan, Li-Fen Feng, John Katsoulis, Alexandra Gorelik, David Kong

Glass recycling - saving more than energy at a Victorian metropolitan hospital

Nhi Dinh; Forbes McGain (Intensive Care Department)

OUR RESEARCH OUTPUT

PRESENTATIONS: 5

PROFESSIONAL AND COMMUNITY ENGAGEMENT

Victor Reginato: President, Association of Hospital Pharmacists Victoria, HSU4

Julie King: Vice President, Association of Hospital Pharmacists Victoria, HSU4

Joanna Edwards: Agenda Secretary, Victoria Branch Society of Hospital Pharmacists (SHPA)

Nhi Dinh: Australian Health Practitioner Regulation Agency (AHPRA) Pharmacy Board National Registration Examiner

Ivy Tan: Member of Central and Western CPN Strategic Project – Clinical Supervision Education Working Group, Subject Matter Expert for Community Services & Health Industry Skills Council Pharmacy Support Review Group, Member of SHPA PEP Working Party

Respiratory and Sleep Disorders Medicine

Respiratory and Sleep Disorders Medicine offers inpatient and outpatient investigation and management of patients with respiratory and sleep disorders. The most common respiratory conditions dealt with are Chronic Obstructive Pulmonary Disease (COPD), Asthma, Lung Cancer, Pulmonary venous thrombo-embolic disease and pneumonia. The most common sleep disorders are obstructive sleep apnoea syndrome and insomnia. The Respiratory Function Laboratory is accredited by the Thoracic Society of Australia and New Zealand as a category 4 (complex test) laboratory. The Sleep Disorders Laboratory is accredited by the Australasian Sleep Association to perform complex sleep studies. The Migrant Screening Clinic coordinates tuberculosis health undertakings for new arrivals and visa applicants for all adults in Victoria.

The research conducted within the department relates to these clinical activities.

1. Clinical trial of long acting anti-muscarinic bronchodilator in COPD.
2. Clinical trial changes in exercise endurance with combination long acting anti-muscarinic bronchodilator and ultra long-acting beta agonist bronchodilator in COPD.
3. Clinical trial of inhaled mannitol in bronchiectasis.
4. Clinical trial of ultra long acting beta agonist bronchodilator and novel inhaled corticosteroid on cardiovascular outcomes in moderate COPD.
5. Management of central sleep apnoea.
6. Adverse outcome audit of obstructive sleep apnoea patients who have had surgery.
7. with suspected Obstructive sleep apnoea having orthopaedic surgery.

OUR RESEARCH

Perioperative assessment of patients suspected of having OSA undergoing orthopaedic surgery

L Sheers, AM Southcott, D Bramley, L Bendon, E Kinkel, L Reid-Price

Outcomes of OSA patients undergoing surgery: An audit

T Basnayake, AM Southcott

A Phase III Multicenter, Randomised, Parallel Group, Controlled, Double Blind Study to Investigate the Safety and Efficacy of Inhaled Mannitol over 12 months in the Treatment of Bronchiectasis. Protocol Number DPM-B-305

AM Southcott, S Casanelia, G McHaileh. Sponsor: Pharmaxis Ltd

The aim of this research is to determine if the well known sugar-molecule, Mannitol can effectively thin lung secretions which are thickened and excessive in Bronchiectasis. This would therefore allow the lung secretions to be cleared more easily and thus leave the patients with less troublesome cough and help prevent recurrent chest infections. Effective treatments for this condition are currently limited and this re-defined use of this medication will be potentially beneficial to this patient group in helping lessen daily symptoms, reducing infections and flare-ups and thus slowing the progress of the lung damage.

A randomised active controlled, double-blind, double-dummy, parallel group design, multi-centre trial to compare the efficacy and safety of 2.5 µg and 5 µg Tiotropium Solution delivered by the Respimat® Inhaler with Tiotropium inhalation capsules 18 µg delivered by the Handihaler®

AM Southcott, M Lim, L Sheers, T Basnayake, S Casanelia. Sponsor: Boehringer-Ingelheim

Tiotropium is a long acting reliever medication for the treatment of COPD. A new formulation in a mist is being trialled which is delivered via a novel inhaler device. The study will test if a substantially smaller dose is as effective and safe when compared with the current product equivalent. Efficacy and safety of new drugs is imperative and this long term two year study will address the issue of safety in more than 16,000 patients world-wide. A new device delivering a smaller dose of the drug which is still effective will provide ongoing benefits to patients with least dose possible.

A Clinical Outcomes Study to compare the effect of Fluticasone Furoate/Vilanterol Inhalation Powder 100/25 mcg with placebo on Survival in Subjects with moderate Chronic Obstructive Pulmonary Disease (COPD) and a history of or at increased risk for cardiovascular disease.

AM Southcott, T Basnayake, S Casanelia. Sponsored by GSK

COPD is recently considered to be an inflammatory disease of more than just the lungs. This study specifically looks at patients with known cardio-vascular disease or risk factors who also have COPD. A new therapy of long-acting reliever and inhaled steroid therapy which may benefit this group of patients in term of survival is being undertaken over a 3-4 year time frame. Treatments for COPD predominantly aim to attenuate symptoms; this study also looks at longer term survival outcomes as an endpoint. A treatment with benefits for longevity and symptom management is a further step in future care of this group of patients.

A randomised, double-blind, 5 treatment arms, 4-period, incomplete cross-over study to determine the effect of 6 weeks of treatment of rally inhaled tiotropium + olodaterol fixed dose combination (FSC) (2.5/5 µg : and 5/5 µg) (delivered by the Respimat® Inhaler) compared with tiotropium (5 µg), olodaterol (5 µg) and placebo (delivered by the Respimat® Inhaler) on lung hyperinflation and exercise endurance time during constant work rate cycle ergometry in patients with Chronic Obstructive Pulmonary Disease (COPD).

AM Southcott, S Frenkel, L Reid-Price, R McConnell, S Casanelia. Sponsor: Boehringer-Ingelheim

In this study the new mist formulation of Tiotropium is combined with a new long acting once a day reliever drug which is believed to have a positive benefit on lung hyperinflation and exercise tolerance in COPD patients. This rigorous study tests the hypothesis by exposing patients to 4 different treatment groups including the individual component and two differing doses of both drugs for 6 weeks blocks, then assessing response to exercise using constant cycle work rate ergometry. Improving patient quality of life is critical to overall well-being and a potential drug to improve a patient's ability to exercise offers greater opportunities in allowing them to participate more actively in their desired activities.

Case series of patients with Central sleep apnoea. Dead space ventilation as a possible treatment.

T Basnayake, AM Southcott, S Frenkel, S Bastiampillai

Central sleep apnoea (CSA) is a less common form of sleep related breathing disorder which often does not respond to standard Continuous Positive airway pressure (CPAP). This project analysed a series of CSA patients and their responses to alternative styles of positive airway pressure. Current treatment for CSA is difficult and modalities such as Adaptive servo ventilation are expensive. Dead space ventilation if effective is cheaper and more accessible for our patient population.

OUR RESEARCHERS

Dr Anne Marie Southcott: Head of Unit, Respiratory and Sleep Disorders Medicine (commenced November 2009)

Ms Sue Casanelia: Respiratory Outreach Nurse/Research Coordinator

Lynnette Reid-Price: Sleep Scientist in Charge

Dr Thilini Basnayake: Registrar (2012)

Dr Simon Frenkel: Respiratory and Sleep Physician

Dr Laina Sheers: Registrar (2010-Feb 2012)

Dr Shalini Bastiampillai: Respiratory and Sleep Physician

Rachel McConnell: Respiratory and Sleep Scientist

Lyn Bendon: Sleep Scientist and Registered Nurse

Dr Melvin Lim: Registrar (2010-Feb 2012)

OUR RESEARCH OUTPUT

PUBLICATIONS: 3
PRESENTATIONS: 4

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

AM Southcott: Reviewer for Internal Medicine Journal

068 Rheumatology

The Rheumatology Department has a strong research interest in osteoarthritis and pain evaluation, a common problem in our obesity epidemic and ageing population.

Our research is clinically orientated with the ethos of improving our understanding and management in order to optimise care of the most common rheumatological problem we encounter in clinical practice.

We strive to become national and regional leaders in this field and as the first step of this process, some of our unit members play active roles in the newly-formed Asia Osteoarthritis Network. This network provides a collaborative, regional approach to foster a better understanding and approach to managing osteoarthritis and pain. Our Head of Unit, Associate Professor Keith Lim, has been invited to many local and international conferences to share our clinical research experiences.

We have interesting preliminary data that will be presented at international conferences with abstracts and articles to follow. We are also in the process of translating commonly used questionnaires into Vietnamese, reflecting the demographics of our hospital community.

Our vision for the department is to be at the forefront of osteoarthritis clinical research as well as providing our trainees with the best advance training across the Melbourne hospitals. It is hoped that our trainees develop a strong appreciation of clinical and research practices.

OUR RESEARCH

The Effects of Intra-articular Steroid Injections in Hip and Knee Osteoarthritis
Nava Ferdowsi, Albert Leung, Keith Lim.

Collaborators: Carolyn Page (SVH), Michelle Dowsey (SVH), Peter Choong (SVH), Danny Liew (RMH)

Quantitative Sensory Testing as a Predictor of Response in Knee Arthroplasty
Kristy Yap, Albert Leung, Shom Bhattacharjee, Keith Lim.

Collaborators: Paul Dieppe (UK), Tissa Wijeratne (Neurology WH), Phong Tran (WH)



The Department of Rheumatology works closely with Physiotherapy and Orthopedic Surgery to ensure patients receive the right treatment at the right time.

The Role of Joint Aspiration in Osteoarthritis Outcome

Albert Leung, Joanna Hall, Phuong Tran, Keith Lim, Danny Liew (RMH)

QST and Epidural Injections for Sciatica

Shom Bhattacharjee, Albert Leung, Kristy Yap, Joanna Hall, Keith Lim, Tissa Wijeratne (Neurology WH), Danny Liew (RMH)

Audit of Epidural Injection Waiting Times to Optimise Efficient Use of the Day Procedure Unit

Kristy Yap, Shom Bhattacharjee, Albert Leung, Lilian Kuan, Keith Lim

Surgical Outcomes in Patients who are Managed in an Orthopaedic Waitlist Program

Joanna Hall, Albert Leung, Carolyn Page, Keith Lim.

Collaborators: Michelle Dowsey, Peter Choong (SVH), Danny Liew (RMH)

This study evaluates the benefits of a dedicated multidisciplinary clinic to streamline the orthopaedic waiting list for knee and hip arthroplasty. This study is important for reducing the waiting time for public patients awaiting arthroplasties by optimising their pre-operative condition and identifying patients who are ready for operative management.

Differences between Patients with Hip and Knee Osteoarthritis

Kim Le Marshall, Bernard Yee, Paul Dieppe, Albert Leung, Carolyn Page, Peter Choong, Sharmayne Brady, Keith Lim

This study provides new insight into the clinical characteristics of patients with hip and knee osteoarthritis. Our initial analysis shows that patients with hip OA present later, compared with knee OA. This study can provide clinicians with a greater understanding about the natural history of hip and knee osteoarthritis, thereby tailoring treatment accordingly.

Collaborators: Carolyn Page (SVH), Prof. Peter Choong (SVH), Bernard Yee (UK), Prof. Paul Dieppe (UK).

The Use of QST to Predict Response to Steroid Injections in Knee Osteoarthritis

Albert Leung, Shom Bhattacharjee, Kristy Yap, Joanna Hall, Keith Lim

Collaborators: Prof Paul Dieppe (UK), Tissa Wijeratne (WH), Danny Liew (RMH)

Unloader Knee Brace in Osteoarthritis of the Knee

Kristy Yap, Joanna Hall, Phuong Tran, Albert Leung, Keith Lim

Collaborators: Carolyn Page (SVH) Paul Silk (Physiotherapy WH)

This study evaluates the use of the unloader knee brace in patients with osteoarthritis as a non-pharmacological and non-surgical option in pain management. Osteoarthritis is a common problem with increasing prevalence. This study could provide evidence for the use of a special knee brace as another treatment option.

Vietnamese translation of the H00s and K00s Osteoarthritis Questionnaire

Nicole Lioufas, Albert Leung, Danny Liew, Phuong Tran, Stephanie Low, Keith Lim

Collaborators: Prof Eva Roos (Lund University Sweden)

Osteoarthritis questionnaires incorporating pain and function are commonly used in evaluating patients with osteoarthritis. The Western Health catchment area includes a large Vietnamese community. We are translating commonly used questionnaires to facilitate a more accurate evaluation of our Vietnamese patients.

By validating this questionnaire, we are providing our Vietnamese patients with a more accurate and realistic assessment of their osteoarthritis pain and function.

OUR RESEARCHERS

Associate Professor Keith Lim: Head of Department

Dr Albert Leung: Rheumatology Consultant

Mrs Phuong Tran: Clinical Research Nurse

Stephanie Low: Medical student

Ron Glick: Medical student

OUR RESEARCH OUTPUT

PUBLICATIONS: 2
PRESENTATIONS: 3

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

A/Prof. Keith Lim

Senior Editor: International Journal of Rheumatology
Vice-President: Asia Osteoarthritis Network (Founding Chairman)
Member: The Australia OA Summit
Scientific Advisory: APLAR Congress Philippines 2014
Asia Chapter: Osteoarthritis and Research Society International OARSI (2012) Invited Member.

Dr Albert Leung

Reviewer: International Journal of Rheumatology
Committee Member: Asia Osteoarthritis Network

CHAPTER
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Vitamin D and Osteoporosis

Peter R. Ebeling, PhD, and
The University of Arkansas, Division of Health Sciences, Fayetteville, Arkansas

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The Australian Institute for Musculoskeletal Science (AIMSS)

The Australian Institute for Musculoskeletal Science is a collaborative institute for research into disorders of bone, muscle and joint; and the promotion of disease prevention and evidence-based interventions including exercise and nutrition.

We are predominantly interested in conditions related to chronic disease and ageing such as osteoporosis, arthritis and sarcopenia. Our expertise spans bone mineral density and fracture risk, falls, fragility, muscle mass and function, the impact of nutrition and exercise on muscle and bone, and the downstream effect that this has on musculoskeletal disease and other markers of health.

AIMSS is truly multi-disciplinary, drawing on endocrinologists, geriatricians, orthopaedic surgeons, physiotherapists, and through our foundation partners, Victoria University and The University of Melbourne, exercise science, nutrition and ageing, gait and balance, biomedical engineering, computational modelling, health economics, and epidemiology of musculoskeletal disease.

CURRENT COLLABORATIVE RESEARCH

Born small and exercise; can exercise in those who were born small normalise bone and glucose homeostasis?

G. McConell, G.Kaur, Victoria University; P.Ebeling, The University of Melbourne/Western Health

Osteocalcin and glycaemic control

I.Levinger, G. McConell, N. Stepto, D. Hare, Victoria University; E. Seeman, P. Ebeling, The University of Melbourne

Vitamin D, physiological and biomechanical assessments, and risk of falls in osteoarthritis

R. Begg, A.Hayes, P.Levinger, G.McConell, P.McLaughlin, A.Petersen, Victoria University; K. Sanders, P.Ebeling, The University of Melbourne/Western Health

Cancer and Exercise: using exercise to treat cancer and treatment related side effects

E. Hanson, A.Hayes, S.Sakkal, S. Baidur-Hudson, G. McConell, C.Dass, Victoria University; D.Travis, Western Health

The associations between characteristics of sarcopenia, vitamin D and falls in community-dwelling older adults

D.Scott, The University of Melbourne; K.Sanders, P.Ebeling, The University of Melbourne/Western Health; E.Skinner, Western Health; P.Levinger, Victoria University

A novel web-support intervention to promote recovery following Anterior Cruciate Ligament Reconstruction

P.Levinger, K.Hallam, Victoria University; S.Talbot, R.Pile, D.Fraser, Western Health

Aetiology and Prognosis of Femoroacetabular Impingement in skeletally mature and immature individuals,

C.Fary, P.Tran, J.O'Donnell, Western Health; N.Sims, A.Takla, The University of Melbourne

The effect of moderate-intensity cardiovascular fitness training compared to standard care in people with a diagnosis of stroke: a pilot randomised controlled trial

H.Reynolds, S.Kenny, J.Tillyard, E.Skinner, Western Health; A/Prof Andy Stewart, Victoria University

Objective assessment of physical activity in older adult populations and associations with health and physical performance,

D.Scott, The University of Melbourne; R. Polman, I. Selva-Raj, J. Van Uffelen, Victoria University

The validity and reliability of a 3-dimensional body scanner for evaluating body composition

P.Ebeling, The University of Melbourne/Western Health; R. Polman, I. Selva-Raj, Victoria University; D.Scott, The University of Melbourne

The Australian Institute for Musculoskeletal Science (AIMSS) (cont.)

OUR RESEARCHERS

SENIOR STAFF / PARTNER ORGANISATION

Professor Peter Ebeling: The University of Melbourne/Western Health

Professor Glenn McConell: Victoria University

Professor Rezaul Begg: Victoria University

Professor Michael McKenna: Victoria University

Associate Professor Alan Hayes: Victoria University

Associate Professor Kerrie Sanders: Western Health/The University of Melbourne

STAFF / PARTNER ORGANISATION

Dr Matt Cooke: Victoria University

Dr Itamar Levinger: Victoria University

Dr Patrick McLaughlin: Victoria University

Dr Aaron Petersen: Victoria University

Dr Chris Stathis: Victoria University

POST-DOCTORAL FELLOWS

Dr Raul Bescos: Victoria University

Dr Andrew Betik: Victoria University

Dr Sharon Brennan: The University of Melbourne

Dr Erik Hanson: Victoria University

Dr Gunveen Kaur: Victoria University

Dr Pazit Levinger: Victoria University

Dr David Scott: The University of Melbourne

Dr Mary Zhang: Victoria University

OUR RESEARCH STUDENTS

Masters

Tiffany Mann: A study of childhood obesity optimising exercise in treating the condition, Victoria University

PhD

Haslinda Gould: Risk factors for aged care assessment: Development of predictive tool, The University of Melbourne

Tania Fernandes: Human Osteoblast Biology on Novel Implantable Scaffolds, The University of Melbourne

John Sheedy: Elucidating biomarkers of bone resorption and exercise by NMR and MS based metabolomics, The University of Melbourne

Jenny Gianoudis: Osteo-cise: Strong Bones for Life. An Inclusive Evidence-based Multi-component Exercise, Falls Prevention and Osteoporosis Education/ Awareness Program, The University of Melbourne

Catherine Shore-Lorenti: Sunlight exposure and risk of type 2 diabetes, The University of Melbourne

Renee Otmar: Barriers and enablers to treatment and prevention of fracture: Exploring knowledge, beliefs, attitudes and cultural models of osteoporosis, The University of Melbourne

le-Wen Sim: Does teriparatide reverse osteonecrosis of the jaw in patients with cancer? A randomised controlled trial, The University of Melbourne

Belal Khan: Effects of low or high dietary calcium intake on bone density and fractures in a population-based longitudinal cohort. The University of Melbourne

Yu Zhang: The primary aim of our study is to determine the cost and quality of life associated with fractures at sites other than hip, spine and wrist, The University of Melbourne

Hong Yet Hoi: How does nitric oxide regulate skeletal muscle glucose uptake during exercise? Victoria University

Scott Betteridge: The effect of nitrates on exercise efficiency and metabolism, Victoria University

Adam Trewin: Effect of exercise intensity on skeletal muscle mitochondrial efficiency during exercise, Victoria University

Chris Hedges: Effect of pH on skeletal muscle mitochondrial efficiency during exercise, Victoria University; Associate supervisor, Victoria University

Tracy Gerber: The effects of continuous vs. high-intensity intermittent exercise on substrate utilisation during exercise and recovery in healthy and obese adults, Victoria University

Christopher Lillico: The effect of a novel high performance suit on speed, power and muscular strength, Victoria University

Nancy Capitanio: The Effects of Dietary Supplements on Mitochondrial and Sarcoplasmic Reticulum Function in type 2 Diabetic Rats: Victoria University

Deanna Horvath: The effect of taurine on dystrophic muscle tissue function, Victoria University.

OUR AWARDS AND GRANTS

AWARDS

S. Brennan: *RM Gibson Scientific Research Award, Australian Association of Gerontology. Gender bias in referral for bone densitometry in patients aged ≥50 years: 2003-10.*

P. Levinger: *Best Early Career Research Presentation Award, 18th Annual Scientific Meeting of the Australian New Zealand Orthopedic Research Society. Lower limb biomechanical changes that impair gait performance following total knee replacement surgery.*

G. McConnell: *Victoria University Vice-chancellor's Peak award for Excellence in Research and Research Training (Research Staff). 2012.*

B. Khan: *MSD-ANZBMS Clinical Research Excellence Award, 1st Asia-Pacific Bone and Mineral Research Meeting and the ANZBMS 22nd Annual Scientific Meeting. Long term high dietary calcium intake and its association with fractures and cardiovascular events in a population based prospective cohort study.*

GRANTS ACTIVE IN 2012

S. Brennan (\$3,128). RM Gibson Scientific Research Award, Australian Association of Gerontology. 2011-12. *Sex bias in referral for bone densitometry in adults aged 50 years and over: 2003-10.*

S. Brennan (\$38,173). University of Melbourne Strategic Grant (Early Career Grant). 2011-12. *Sex bias in referral for bone densitometry: 1991-98 to 2003-10.*

S. Brennan (\$19,862). Arthritis Victoria. 2011-12. The association between socioeconomic status and utilization of total hip and knee joint replacement across Australia.

G. McConnell and S. Rattigan (\$543,390). NHMRC Project Grant (1012181). *Does exercise increase skeletal muscle insulin sensitivity via nitric oxide? 2011-2013*

D. Kennaway, G. McConnell, J. Owens (\$605,050). NHMRC Project Grant (1029869). *Circadian rhythm disruption and metabolic function. 2012-2014*

S. Brennan and G. Nicholson (\$290,032). NHMRC Training Fellowship (1012472). *Investigating the psychosocial and socioeconomic predictors of osteoporosis.*

K. Sanders. (\$150,000). Merck, Sharp & Dohme (Australia) Ltd. *The Australian Study of Cost and Utilities Related to Osteoporotic Fractures.*

A. Carr, J. Hoy, P. Ebeling, N. Pocock. (\$687,807) NHMRC Project Grant (1022660). *Bisphosphonate Therapy with Zoledronate or Tenofovir Switching to Improve Low Bone Mineral Density in HIV-Infected Adults: a Strategic, Randomised Trial 2012-2014*

P. Ebeling, G. Borromeo and J. Seymour. (\$346,175) NHMRC Project Grant (1030371). *A randomised controlled trial of a bone formation stimulating hormone to reverse osteonecrosis of the jaw in cancer patients.*

M. Kimlin, D. Whiteman, R. Lucas, C. Sinclair, R. Neale, P. Ebeling, P. Youl, L. Gordon, M. Janda. (\$2,379,750). NHMRC Centre for Research Excellence in Sun and Health. 2010-2015.

GRANTS AWARDED IN 2012

R. Neale, B. Armstrong, P. Ebeling, D. English, M. Kimlin, A. Venn, J. van der Pols, R. O'Connell. (\$2,930,705) NH&MRC Project Grant (1046681) D-Health: A randomised trial of vitamin D for prevention of cancer and mortality.

S. Brennan. (\$10,000) 2013 Arthritis Australia Grant-in-aid funded by Zimmer Australia. *The association between socioeconomic status and total joint replacement across Australia.*

S. Brennan. (\$9,100) Victorian Orthopedic Association Research Grant. *Social and geographic associations with shoulder joint replacement Australia-wide 2006-2011*

The Australian Institute for Musculoskeletal Science (AIMSS) (cont.)

S.Brennan. (\$5,000) Dyason Fellowship; The University of Melbourne. *Social and ethnic disparities in the uptake of bone density testing and osteoporosis therapies pre and post-fracture*

C.Fary, P.Tran, J.O'Donnell, N.Sims, A.Takla. (\$6,650) AIMSS Seed Funding. *Aetiology and Prognosis of Femoroacetabular Impingement in skeletally mature and immature individuals.*

E.Hanson, S.Sakkal, S.Baindur-Hudson, G.McConnell, A.Hayes, M.Grossman, C.Battaglini, G.Duchesne, D.Travis (\$18,000). CRN Start Up Grant. *Cancer and Exercise (Using exercise to treat cancer and treatment related side effects)*

A.Hayes, P.Levinger, R.Begg, A.Petersen, K.Sanders, F.Cicutini. (\$18,000) CRN Start Up Grant. *Optimal exercise and nutritional strategies to improve bone/muscle strength and gait function for falls prevention.*

P.Levinger, S.Talbot, C.Ardern, K.Hallam, D.Fraser, R.Pile. (\$10,000) AIMSS Seed Funding. *A novel web-support intervention to promote recovery following Anterior Cruciate Ligament Reconstruction.*

G.McConnell, G.Kaur, P.Ebeling, M.Wlodek, A.McAinch, P.Sinnayah. (\$15,000) CRN Start Up Grant. *Born small and exercise (Can exercise in those who were born small normalise bone and glucose homeostasis?)*

D.Scott, E.Skinner, P.Levinger, T.Haines, P.Ebeling, K.Sanders. AIMSS Seed Funding. *The associations between characteristics of sarcopenia, vitamin D and falls in community-dwelling older adults.*

N.Stepto, C.Shaw, A.McAinch, M.Cooke, C.Stathis, R.Polman, L.Banting, M.McKenna, H.Teede, J.Hawley, L.Parker. (\$15,000) *Role of an active lifestyle on functional limitation and cognitive functioning in ageing individuals and neurological disease*

A. Betik, E. Hanson, A.Hayes. (\$4000) BioLED small grant; Victoria University. *Role of Testosterone and Protein Supplementation in the Maintenance and Regrowth of Skeletal Muscle.*

Zhang, M. (\$2000) BioLED small grant; Victoria University. *Role of Nitric Oxide (NO) in increase in insulin sensitivity following muscle contractions*

OUR RESEARCH OUTPUT

PUBLICATIONS: 67
PRESENTATIONS: 3

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

P.Ebeling: Medical Director, Osteoporosis Australia

P.Ebeling: Councillor, American Society for Bone and Mineral Research

P.Ebeling: Board Member, International Osteoporosis Foundation, Geneva

P.Ebeling: Co-Chair, American Society for Bone and Mineral Research Annual Scientific Meeting

P.Ebeling: President Endocrine Society of Australia

SCIENTIFIC JOURNAL EDITORIAL BOARDS:

P.Ebeling: Associate Editor, Journal of Bone and Mineral Research

P.Ebeling: Member, Editorial Board, Osteoporosis International

P.Ebeling: Member, Editorial Board, Clinical Endocrinology (Oxford)

G.McConnell: Journal of Applied Physiology

G.McConnell: Clinical and Experimental Pharmacology and Physiology (CEPP)

K.Sanders: Editorial member, Journal Bone and Mineral Research

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Melbourne Neuropsychiatry Centre

The Melbourne Neuropsychiatry Centre (MNC) is a clinical research centre of The University of Melbourne and Melbourne Health and is based in three sites: (1) National Neuroscience Facility (NNF), Alan Gilbert Building, Parkville; (2) Neuropsychiatry Unit, Royal Melbourne Hospital, Parkville; (3) Western Centre for Health Research & Education (WCHRE), Sunshine Hospital.

The Centre was established in 2004 and focuses on understanding the neurobiology of mental disorders from childhood to adulthood. The Centre consists of over 80 people, including research staff, students and professional staff. The Centre receives support from major grants from NHMRC and ARC (including, Program, Project, Enabling and collaborative grants with the EU, as well as Fellowships), as well as other national and international funding agencies. Since 2004, the Centre has received \$9.3million in direct grant funding and over \$30million in collaborative grants and has produced over 470 publications. Details of the Centre can be found at <http://www.psychiatry.unimelb.edu.au/centres-units/mnc/>. The Centre consists of four interdigitating streams, as follows:

Psychosis and Developmental Neuropsychiatry seeks to understand the neurobiology of disorders emerging in childhood and adolescence, including psychotic disorders, particularly schizophrenia. Our studies investigate these disorders longitudinally, and within the context of brain maturation. We seek to identify neurobiological and genetic markers of these illnesses related to onset of the illness or its progression. A major component of this work is undertaken at WCHRE, involving recruitment of patients with psychotic illnesses, and studies in children with developmental disorders, including autism spectrum and children with schizotypal features.

The **Affective Neuropsychiatry** group is interested in how the brain supports complex human emotional experiences and behaviours. This research is primarily focused towards how alterations in normal function may contribute to common

mood and anxiety disorders. They use fMRI in combination with experimental psychological approaches to study changes in the activity of brain networks. During 2012, the group has established a base at WCHRE and Sunshine Headspace, involving recruitment and treatment of young people with affective disorders and with brain imaging using the latest MRI scanning at Sunshine Hospital.

The other streams of MNC are mainly based in Parkville:

The **Clinical Neuropsychiatry** team at RMH investigates the link between psychiatric and neurological disorders. A focus has been the relationship of schizophrenia to frontal-temporal dementia (FTD), including recruitment of patients in the West.

Addiction Neuropsychiatry team investigates the neurobiological and psychological factors involved in addictive behaviours and associated conditions. This includes the effects of chronic drug use on brain and behaviour.

Systems Neuropsychiatry is focused on the application of new methods to map the human connectome, to examine brain connectivity organisation and maturation and how brain connectivity is disrupted by mental illness. This is computationally demanding, requiring computer clusters for analysis.

CURRENT RESEARCH

Australian Schizophrenia Research Bank (ASRB)

Vaughan Carr, Ulrich Schall, Rodney Scott, Assen Jablensky, Bryan Mowry, Patricia Michie, Stan Catts, Frank Henskens, Christos Pantelis.

Collaborators: Involves key schizophrenia research centres across Australia.

This is a national initiative to establish an Australian bank of clinical, neuropsychological, brain imaging and genetic data on patients with established schizophrenia. The initiative has been funded

through NHMRC, with additional support from the Pratt Foundation.

This is a unique resource in Australia, providing researchers nationally and internationally with data to address important questions about the neurobiology of schizophrenia.

The OPTiMiSE Study

Christos Pantelis, Patrick McGorry, Dr. Marc Seal, Chad Bousman, Aswin Ratheesh, Sashin Kumar.

Collaborators: The OPTiMiSE Consortium, Europe ORYGEN Youth Health, The Melbourne Clinic, Southern Health.

The OPTiMiSE study focuses on two goals: i) optimising current treatments in schizophrenia and ii) exploring novel therapeutic options for schizophrenia. Recruitment at a number of services around Melbourne has recently commenced. It is expected that the project will lead to evidence that is directly applicable to treatment guidelines, and will identify potential mechanisms for new drug development.

The CRC Psychosis Study

Christos Pantelis, Ian Everall, Brian Dean, Chad Bousman, Suresh Sundram.

Collaborators: MNC @ Melbourne University, Monash University, National Institute of Mental Health (NIMH), Washington DC (Dr Nitin Gogtay).

This project will use blood-based molecular and neuroimaging techniques to identify clinical biomarkers of treatment-resistant schizophrenia and other psychotic disorders. Biomarker discovery offers the advantage of facilitating early diagnosis and novel treatment strategies using objective techniques, recognised as being critical for improving long-term clinical outcomes.

An investigation of pervasive, social and interpersonal difficulties in childhood: cognitive, motor, language and neurological functioning.

Renee Testa, Harvey Jones (student), Nola Ross, Marc Seal, Bruce Tonge, Christos Pantelis.

The first aim of this study is to characterise the clinical phenotype of children with pervasive, social and interpersonal difficulties in childhood (and who are considered to have a schizotypal condition). This analysis will focus on clinical, behavioural and cognitive features of presenting children.

The second aim of this study is to assess the clinical utility of an assessment tool that has been developed to identify and characterise children with SPD features (The Melbourne Assessment of Schizotypy in Kids [MASK]).

Thirdly, we aim to use functional brain imaging (fMRI) to examine the brain networks (default mode network) in children demonstrating a pre-occupation with an imaginative and fantasy world, comprising of magical thinking and odd or unusual ideas and themes. This study will define the features and condition of schizotypy in children and examine their brain function. We aim to follow these children into adolescence to assess outcome. The MASK has proved successful and is already being utilised by our collaborator, Dr Nitin Gogtay in the US.

A cluster analysis exploration of the characteristics of high-functioning subgroups within the autism spectrum in children aged 8-12 years.

Renee Testa, Felicity Klopfer (student), Christos Pantelis, Bruce Tonge, Stan Skafidas.

The primary objective of this study is to employ the statistical technique of cluster analysis to explore whether children with high-functioning Autism Spectrum Disorder (ASD) can be differentiated into clinically meaningful subgroups on the basis of cognitive, behavioural, developmental, and medical variables. These variables

will be identified as important from preliminary analysis of AGRE data from the US (www.agre.org; Melbourne University Human Research Ethics Committee Approval Number 0932503.1), and also additional relevant and more detailed variables identified via literature review.

It is hypothesised that cluster analysis of cognitive, behavioural, developmental, and medical variables for individuals with ASD without cognitive impairment will produce at least two clusters that are different in a clinically meaningful way. Furthermore, it is predicted that the clusters will differ in their receptive language and pragmatic communication ability, their pattern of restricted and repetitive behaviours and interests, and also in the ratio of affected males to females. This work will examine and detail the characteristics of children with high functioning Autism. This work follows on from our initial study published in Molecular Psychiatry (Skafidas et al, 2012), which defined a genetic classifier for ASD. Further work will examine genetic markers relevant to different subtypes of ASD. MNC @ Melbourne University, Centre for Neural Engineering @ Melbourne University, Monash University.

A neuroimaging study of anxiety and mood regulation in youth.

Ben Harrison, Christopher Davey, Christos Pantelis, Patrick McGorry, Rebecca Kerestes, Chad Bousman, Katerina Stephanou.

The primary objective of this study is to systematically investigate how the brain regulates mood and anxiety in healthy individuals. We will address this by utilising three tasks that are designed to activate the emotion regulation neural circuitry. We will use fMRI-based methods such as functional connectivity to examine the relationship between anterior insular cortex activity and individual differences in anxiety sensitivity. We will also examine connectivity patterns in medial network areas during the three tasks, and assess whether connectivity and activation in these regions is associated with measures of rumination and depressive symptoms. This project aims to increase our understanding of how the brain regulates

mood and anxiety. This may lead to the development of better treatments for people who suffer from mood and anxiety disorders and increase awareness within the community.

An investigation into the cognitive skills underpinning single word decoding in children with reading disorders.

Renee Testa, Amy Lee, Nola Ross, Jennie Ponsford.

Collaborators: MNC @ Melbourne University, Monash University.

Collaborators: MNC @ Melbourne University, Monash University, National Institute of Mental Health (NIMH), Washington DC (Dr Nitin Gogtay).

An investigation of pervasive, social and interpersonal difficulties in childhood: cognitive, motor, language and neurological functioning.

Renee Testa, Harvey Jones (student), Nola Ross, Marc Seal, Bruce Tonge, Christos Pantelis.

A cluster analysis exploration of the characteristics of high-functioning subgroups within the autism spectrum in children aged 8-12 years.

Renee Testa, Felicity Klopfer (student), Christos Pantelis, Bruce Tonge, Stan Skafidas.

Collaborators: MNC @ Melbourne University, Centre for Neural Engineering @ Melbourne University, Monash University.

Identifying neuroimaging biomarkers of psychosis onset and relapse.

Christos Pantelis, Richard Banati, Vanessa Cropley, James Olver, Paul Amminger, Christopher Rowe, Graeme O'Keefe, Ian Everall, Dennis Velakoulis, Mario Jimenez-Alvarez, Barnaby Nelson, Alison Yung, Uwe Ackermann, John Sachinidis, Gordon Chan, Sharon Naismith, Tim Rolfe, Lee Allen, Chad Bousman, Stephen Wood, Malcolm Hopwood, Andrea Polari, Patrick McGorry, Ian Hickie.

Collaborators: Austin PET Centre & Austin Hospital, ORYGEN Youth Health, Brain & Mind Research Institute, NSW. This study was commencing in 2012, with initial PET scans planned for early 2013.

A neuroimaging study of anxiety and mood regulation in youth.

Ben Harrison, Christopher Davey, Christos Pantelis, Patrick McGorry, Rebecca Kerestes, Chad Bousman, Katerina Stephanou.

OUR RESEARCHERS

Christos Pantelis: Professor of Neuropsychiatry & Scientific Director, NHMRC Senior Principal Research Fellow

Ben Harrison: Post-doctoral Fellow, NHMRC Clinical Career Development Fellowship

Chris Davey: Consultant Psychiatrist & Research Fellow

Renee Testa: Child neuropsychologist & Research Fellow

Vanessa Cropley: Post-doctoral Fellow, NHMRC Post-Doctoral Training Clinical Fellow

Christina Phassoulotis: Post-doctoral Fellow

Rebecca Kerestes: Post-doctoral Fellow

Tony Dann: Professional Staff

Chester Kang: Professional Staff

Barbara Stachlewski: Professional Staff

Antonia Merritt: Research Officer

Hannah Cross: Research Officer

Annabel Burnside: Research Officer

Michelle Lamblin: Research Officer

Maria Di Biase: Research Officer

Steven Tahtalian: Research Officer

Sarah Gale: Research Officer

OUR RESEARCH STUDENTS

Mr Harvey Jones: DPsych(Clinical Neuropsychology)

Ms Felicity Klopper: DPsych(Clinical Neuropsychology)

Ms Hui Minn Chan: DPsych(Clinical Neuropsychology)

Ms Amy Lee: DPsych(Clinical Neuropsychology)

Mr Jeggan Tiego: DPsych(Clinical Neuropsychology)

Ms Katerina Stephanou: Doctor of Philosophy

OUR AWARDS AND GRANTS

Senior Principal Research Fellowship, Professor Christos Pantelis, *Understanding Brain Changes in Adolescence and Neuropsychiatric Disorders.* NHMRC: \$841,250 (2010-2014)

Training Fellowship, Dr Vanessa Cropley, *SPECT imaging of cortical muscarinic acetylcholine receptors in schizophrenia: Is it a useful biomarker?* NHMRC: \$290,032 (2011- 2014)

Clinical Career Development Award, Dr Ben Harrison, *Cortico-Striatal Network Alterations in Obsessive-Compulsive Disorder.* NHMRC: \$377,000 (2010-2013)

NARSAD Distinguished Investigator Grant, Prof Christos Pantelis, *Neuroimaging Biomarkers of Psychosis Onset" - PET study examining inflammatory markers (microglial activity) in the CNS of patients developing acute psychosis.* The Brain & Behavior Research Foundation in the US: \$100,000 (USD) (2011-2012)

NHMRC-EU Grant, Prof Christos Pantelis, Prof Patrick McGorry, Dr. Marc Seal, Dr Chad Bousman, Dr Aswin Ratheesh, Dr Sashin Kumar, *Optimising current therapeutic approaches to schizophrenia: The OPTiMiSE consortium.* NHMRC: \$979,375 (2010-2014)

NHMRC-EU Grant, Prof Patrick McGorry, Prof Christos Pantelis, *Gene - environment interactions as predictors of clinical outcome in the At Risk Mental State.* NHMRC: \$997,875 (2010-2014)

NHMRC Enabling Grant (extended funding), Carr V, Schall U, Scott R, Jablensky A, Mowry B, Michie P, Catts S, Henskens F, Pantelis C, *Australian Schizophrenia Research Bank (ASRB)* NHMRC: \$440,650 (2011-2012)

CRC for Mental Health, Christos Pantelis, Ian Everall, Brian Dean, Chad Bousman, Suresh Sundram, *Identification of biomarkers of treatment-resistant schizophrenia and other psychotic disorders: Can we predict clozapine response?* CRC for Mental Health: \$330,000 (2011-2012)

Instituto de Salud Carlos III, Ministry of Science and Innovation, Carles Soriano-Mas, Jesus Pujol, Benjamin Harrison, Prof Christos Pantelis, *Functional connectivity in fronto-striatal networks in the obsessive-compulsive disorder subtypes*, Fondo de Investigación Sanitaria (FIS) – Spain: 86,515 (€) (2010-2012)

Project Grant, Bryan Mowry, Liz Holliday, Peter Visscher, Matthew Brown, Stephen Rose, Prof Christos Pantelis, *Identifying eQTLs and endophenotyping known CNVs in a large Australian schizophrenia sample* NHMRC: \$876,750 (2010-2012)

Program Grant, Prof. Patrick McGorry, Prof Antony Jorm, Prof. Ian Hickie, Prof Christos Pantelis, Prof. Alison Yung, *Emerging Mental Disorders in Young People: Using Clinical Staging for Prediction, Prevention and Early Intervention* NHMRC: \$1,460,000 (2009-2013)

Project Grant, Dr Christopher Davey, Prof Patrick McGorry, A/P Andrew Chanen, Dr Sarah Hetrick, Dr K Yuen, *Youth depression alleviation: a randomised controlled trial of cognitive behavioural therapy with fluoxetine or placebo* NHMRC: \$1,200,000 (2012-2017)

Project Grant, A/Prof Ben Harrison, Prof Murat Yucel, Dr Chris Davey, Jesus Pujol, Prof Nick Allen, Dr Alex Fornito, *A brain-based measure of anxiety sensitivity*. NHMRC: \$265,000 (2012-2014)

Project Grant, A/P Murat Yucel, A/Prof Ben Harrison, A/P Rob Hester, Jesus Pujol, Prof Michael Breakspear. *Cognitive control and brain connectivity disturbances in schizophrenia and obsessive-compulsive disorder; Clarifying their nature, specificity, and consequences*. NHMRC: \$358,348 (2011-2014)

OUR RESEARCH OUTPUT

PUBLICATIONS: 43
PRESENTATIONS: 19

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Chris Pantelis

Member of the Scientific Advisory Councils of Neurosciences Victoria (since 2006) and the Illawarra Institute for Mental Health (since 2010).

Member of Editorial Boards of Australian & NZ Journal of Psychiatry, Journal of Cognitive Neuropsychiatry International Review of Psychiatry, Acta Neuropsychiatrica, Psychiatriki and Brazilian Journal of Psychiatry, Schizophrenia Research, Schizophrenia Bulletin and Biological Psychiatry.

Vanessa Cropley

NHMRC Postgraduate Scholarship panel
Expert grant reviewer for the NHMRC (x2) and the ARC Linkage Scheme.
Adhoc reviewer for several leading national and international journals including: Brain and Cognition, Neurobiology of Aging, Psychiatry Research, Archives of General Psychiatry, Biological Psychiatry, PLoS ONE, Schizophrenia Bulletin, Australian and New Zealand Journal of Psychiatry and Psychopharmacology.

Research

Victoria University at Western Centre for Health Research and Education

Research in the School of Biomedical and Health Sciences and Nursing and School of Nursing and Midwifery at the WCHRE is predominantly undertaken within the Biomedical and Lifestyle Diseases Unit and the Clinical and Community Care Unit. The Biomedical and Lifestyle Diseases Unit research is focused on expanding our knowledge on the role that lifestyle associated diseases play in limiting not only our lifespan but also our quality of life. Our ability to age well and age productively is affected by a number of health issues, including: obesity, diabetes, cardiovascular disease, cancer, inflammation, gastrointestinal issues (including irritable bowel, GIT diseases, and appetite regulation), musculoskeletal health (including physical functioning and sarcopenia). To expand our knowledge, the Biomedical and Lifestyle Diseases Unit utilises laboratory based scientific inquiry as well as applied clinical and therapeutic interventions to promote health and prevent illness, restore health, and promote the wellbeing of individuals.

Researchers in the Clinical & Community Health Research Unit carry out research in key programs with the following themes: utilising health information technology, promoting health and wellbeing, improving the quality of care, and providing culturally sensitive care. Mental health research focuses on three main areas: prevention and early intervention in people with mental health problems, including alcohol and drug misuse issues; promotion of recovery in people with severe and enduring mental illness; and promotion of primary caregiver/family coping and wellbeing. Pregnancy research focuses on women's pregnancy experiences, adverse outcomes and risk in pregnancy, perinatal health and morbidity, gestational diabetes, older maternal age, and sexual health. Acute and chronic illness research concentrates on investigating interventions which will enhance standards of community and hospital care in collaboration with health service providers, in particular, evaluation of current practice and the generation and use of evidence to improve patient outcomes.

OUR RESEARCH

Nurse-sensitive Indicators – A Survey of Nurses at Western Health

Associate Professor Liza Heslop, Wendy Calder (WH) Lucy Lu and Jane Xu

An Exploratory Study of Care Coordination Work Practice and Activity

Rebecca Power (WH), Kate Cranwell (WH), Prue Deckert (WH), Abby Bean (WH), Liza Heslop

Care Coordination Experienced Based Co-Design Project

Rebecca Power (WH), Kate Cranwell (WH), Prue Deckert (WH), Abby Bean (WH), Liza Heslop, John Bamberg

Investigating the Educational Needs of High Risk Women with Gestational Diabetes Mellitus (GDM)

Associate Professor Mary Carolan, Dr Maureen Farrell, Ms Cheryl Steele

Collaborators: Victoria University, ACCD, Western Health

Developing an Innovative Educational Program for High Risk Women with Gestational Diabetes Mellitus (GDM) Phases 1 and 2

Associate Professor Mary Carolan, Dr Gurjeet Gill, Ms Cheryl Steele

Collaborators: Victoria University, ACCD, Western Health

This project aimed to develop GDM self-management resources (information sheets) for high-risk (disadvantaged/ethnic) women with gestational diabetes mellitus (GDM). The ultimate aim is to educate and empower women to understand and develop skills to self-manage their GDM. Touch screen online resources will be available for testing at the Diabetes clinic early 2013. GDM is one of the biggest health challenges of the 21st century, and rates in Australia have increased dramatically in the past decade. Disadvantaged/ethnic women are most at risk developing and mismanaging GDM. This research aims to develop resources to assist women with low levels of literacy to better understand their condition.

Food for Thought: Eating for your Baby Associate Professor Mary Carolan

Collaborators: Victoria University, ACCD, Western Health

This follow on project aims to develop a new self-management program for high-risk (disadvantaged/ethnic) women with gestational diabetes mellitus (GDM). This program focuses on successful GDM self-care and behavioural change such as, healthy eating, being active and reducing pregnancy morbidity. It will include touch screens and web-based online materials aimed at addressing low health literacy. No such program is available in Australia.

This research aims to develop resources to assist women with low levels of literacy to better self-manage their condition.

Older Maternal Age and Pregnancy Outcomes Predictors of Perinatal Morbidity

Collaborators: Consultative Committee on Perinatal and Maternal Morbidity (CCOPMM) Monash University, LaTrobe Mother Child research

This work clearly aimed to examine maternal age related perinatal morbidity. It established that older maternal age is associated with increased rates of caesarean section and induction of labour especially among private patients in Victoria. It also examined, for the first time, the implications of both older maternal age and ethnicity on GDM rates among Victorian women (Australia) and found that ethnicity was an independent risk factor for GDM and also that this risk increased dramatically as women aged. Maternal age is increasing and it is important that services understand the needs of this new group of childbearing women.

OUR RESEARCHERS

Professor Greg Blatch: Head of School

Professor Glenn McConell: Exercise Science Research Leader

Associate Professor Alan Hayes: Assistant Dean

Professor Terence McCann: Research Professor

Associate Professor Mary Carolan: Academic

Associate Professor Liza Heslop: Academic

Dr Debra Kerr: Academic

Dr Kulmira Nurgali: Academic

Dr Anthony Zulli: Academic

Dr Elizabeth Verghese: Academic

Dr Matthew Cooke: Academic

Dr Christos Stathis: Academic

Dr Samy Sakkal: Academic

Dr Emma Rybalka: Academic

Dr Swati Baidur-Hudson: Academic

Dr Ahmed Rahman: Postdoctoral Research Fellow

Dr Simona Carbone: Postdoctoral Research Fellow

Dr Erik Hanson: Postdoctoral Research Fellow

Dr Gunveen Kaur: Postdoctoral Research Fellow

Dr Mary Zhang: Postdoctoral Research Fellow

Dr Eva-Rachele Pesce: Postdoctoral Research Fellow

Dr Mridula Bandyopadhyay: Postdoctoral Research Fellow

OUR RESEARCH STUDENTS

Jane Xu PhD

Philip Shields PhD

Mahdi Bazaragalani PhD

Ms Dorota Frankowska PhD

Ms Robyn Fairhall PhD

Ms Denise Cornall PhD

Ms Astri Maijid PhD

Ms Minerva Kyei-Nimakoh PhD

Ms Nancy Capitanio PhD

Ms Tracey Gerber PhD

Ms Jessica Danaher PhD

Ms Cara Timpani PhD

Ms Rachel McQuade PhD

Ms Vanesa Jovanovska Honours

Ms Emma Tuckett Honours

Ms Elife Kadife Honours

Ms Sarah Miller Honours

Mr Troy Gosetti Honours

OUR RESEARCH OUTPUT

PUBLICATIONS: 11
BOOK CHAPTERS: 1
PRESENTATIONS: 7

OUR AWARDS AND GRANTS

Associate Professor Mary Carolan, *Developing an Innovative Educational Program for High Risk Women with Gestational Diabetes Mellitus (GDM) Phase 2.* Ian Potter Foundation. \$50,000. (2012-2013)

Associate Professor Mary Carolan, *Food for Thought: Eating for your Baby.* Diabetes Australia. \$59,000. (2012)

Research Development Grant: **Dr Aaron Petersen, Associate Professor Alan Hayes, Professor Greg Blatch, Dr Eva Pesce** *Heat Treatment as a Therapy for Muscle Wasting in the Elderly,* Victoria University. \$27,981

Dr Erik Hanson, Dr Swati Baidur-Hudson, Professor Glenn McConell, Professor Claudio Battaglini, Dr Gillian Duchesne, Professor Stuart Phillips, Associate Professor Alan Hayes. *Does Protein Supplementation and Resistance Exercise Protect Against Muscle Atrophy During Prostate Cancer Treatment?* Victoria University. \$28,735

OUR PROFESSIONAL AND COMMUNITY ENGAGEMENT

Liza Heslop

Statutory Committee Membership
Member Clinical Advisory Committee
Independent Hospital Pricing Authority (IHPA) – five year term
Joint working party of the Australian Safety and Quality in Health Care (ACSQHC)

Mary Carolan

Member, International Confederation of Midwives (ICM); Perinatal Society of Australia and New Zealand (PSANZ), and Australian College of Midwives Incorporated (ACMI). Sub-editor: *Women & Birth Journal.*

Our Partners



University of Manitoba, Winnipeg Canada
Population Health Research Institute (PHRI) McMaster University, Ontario Canada

Mayo Clinic, MN

University of California, San Francisco

Harvard University, MA
Yale University, CT
The Brain & Behavior Research Foundation, New York USA
National Institute of Mental Health (NIMH), Washington DC

Nottingham University Hospitals NHS Trust (UK)
Oxford University
The University of Sheffield, UK
Universities of Exeter & Plymouth (UK)

Instituto de Salud Carlos III. Ministry of Science and Innovation Fondo de Investigación Sanitaria, Spain



Lund University,
Sweden

Aarborg University,
Denmark

World Health
Organisation,
Switzerland

Queen Mary
Hospital, Hong
Kong
The University
of Hong Kong

Asia Pacific Stroke
Association, India

National Stroke
Association
of Sri Lanka
University of
Colombo, Sri Lanka

Flinders University
SA Health
University of South
Australia

Queensland Institute
of Medical Research
(QIMR)
Queensland
University of
Technology (QUT)
Royal Brisbane
Hospital (RBH)
The University
of Queensland

Kidsfirst Kindergartens,
New Zealand
Starship Children's
Health, New Zealand

Princess Margaret
Hospital for
Children

University of
Newcastle
The George Institute
for Global Health
The University of
Sydney
Wollongong
Hospital
Youth Health, Brain
& Mind Research
Institute

Australian National
University
Australian Research
Council (ARC)
Australian Sports
Medicine Association
Cooperative
Research Centres
(CRC)
National Health and
Medical Research
Council (NHMRC)

Our Partners - Victoria

SPONSORS

Abraxis BioScience

AstraZeneca

Amgen Australia Pty Ltd

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Bayer Australia Ltd

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Ethicon

Gilead

GlaxoSmithKline

ImClone

Intensive Care Foundation

Janssen-Cilag

Jansen & Millinium

Novartis Oncology Australia

Merck, Sharp and Dohme (MSD)

Ormond College

Pfizer Oncology

Pharmaxis

PPD Australia

Roche Pharmaceuticals

Sanofi-Aventis

Servier Australia

Shire Pharmaceuticals

SIRTeX Medical Ltd

Victorian Cancer Agency (VCA)

Windermere Foundation

Western and Central Melbourne Integrated
Cancer Service (WCMICS)

Western Region Health Centre

Wyeth Australia Pty Ltd



COLLABORATORS

Alfred Health

Ambulance Victoria

ANZ Breast Cancer Trials Group

ANZ Intensive Care Society Clinical Trials Group (ANZICS CTG)

ANZ Intensive Care Research Centre (ANZICRC)

Asia Pacific Association of Young Neurologists and Trainees

Austin Health

Australasian College for Emergency Medicine (ACEM) Clinical Trials Group

Australasian Leukemia & Lymphoma Group

Australian Medical Association, Victorian Branch (AMA)

Australian Sports Medicine Association

Australasian Kidney Trials Network

Australian Lung Trials Group

Baker IDI Heart and Diabetes Institute

Beyond Blue

Bio21 Cluster

BioGrid

Cancer Trials Australia (CTA)

Cochrane Renal Group

College of Intensive Care Medicine of Australia and New Zealand

CRC for Mental Health

Dorevitch Pathology

Deakin University

Department of Health, Victoria

Diabetes Australia (Victoria)

Diabetes Australia Research Foundation

Eastern Health

Florey Neurosciences Institutes

Geelong Hospital

General Practice Victoria

Kidney Health Australia

LaTrobe University

Ludwig Institute of Cancer Research

Macedon Ranges and North Western Melbourne Medicare Local

Melbourne Neuroscience Institute

Melbourne Brain Centre

MonashHeart, Southern Health

Monash Medical Centre (MMC)

Monash University

Murdoch Children Research Institute

National Stroke Research Institute

Neuroscience Trials Australia (NTA)

North-East Health Wangaratta

Nurses Board of Victoria

ORYGEN

Osteoporosis Australia

Peter MacCallum Cancer Centre

Royal Australasian College of General Practitioners (RACGP)

Royal Australasian College of Physicians (RACP)

Royal Melbourne Hospital (RMH)

Royal Melbourne Institute of Technology (RMIT)

St Vincent Hospital (SVH)

Stroke Society of Australasia

The Cancer Council of Victoria (CCV)

The Heart Foundation

The Royal Women's Hospital (RWH)

The Royal Children's Hospital (RCH)

The University of Melbourne

The Victorian Forensic Paediatric Medical Service (VFPMS)

Victorian and Interstate Health Services

Victoria University

Victorian Cancer Agency (VCA)

Victorian Comprehensive Cancer Centre (VCCC)

Victorian Stroke Clinical Network

Walter and Eliza Hall Institute (WEHI)

Wangaratta Hospital

Western Region Health Centre

Wodonga

NORTH
EAST

GIPPSLAND

Bairnsdale



Western Health

WESTERN HOSPITAL

Gordon Street
Footscray VIC 3011
Locked Bag 2, Footscray VIC 3011
8345 6666

SUNSHINE HOSPITAL

Furlong Road
St Albans VIC 3021
PO Box 294, St Albans VIC 3021
8345 1333

SUNSHINE HOSPITAL RADIATION THERAPY CENTRE

176 Furlong Road
St Albans VIC 3021
8395 9999

WESTERN CENTRE FOR HEALTH RESEARCH AND EDUCATION

Sunshine Hospital
Furlong Road
St Albans VIC 3021
8345 1333

SUNBURY DAY HOSPITAL

7 Macedon Road
Sunbury VIC 3429
9732 8600

WILLIAMSTOWN HOSPITAL

Railway Crescent
Williamstown VIC 3016
9393 0100

DRUG HEALTH SERVICES

3-7 Eleanor Street
Footscray VIC 3011
8345 6682

HAZELDEAN TRANSITION CARE

211-215 Osborne Street
Williamstown VIC 3016
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