A word from the Director of Research...

Dear Colleagues

It’s been a very busy first half of the year in the Research Directorate with a number of significant changes to enhance Barwon Health’s research capacity and output.

A major reorganisation has seen the Research Directorate grow and establish specialist areas including a newly appointed Health Services Research Coordinator, a Research Librarian shared with Library Services and increased staffing for the rebadged Research Ethics Governance and Integrity Unit (REGI). REGI now has dedicated Research Governance and Research Ethics officers who, together with the REGI team have made significant improvements to the REGI website and research ethics review processes at Barwon Health. I encourage you to browse the new REGI website and send your feedback to the REGI Team.

We have been successful in our application for renewal of our NHMRC HREC accreditation for a further three years and the addition of research involving Paediatrics to our HREC certification. The NHMRC has also recently invited BH to participate in a number of pilot initiatives, including the Good Practice Research Governance Process designed to enhance clinical trial research. NHMRC funding for this project has enabled the appointment of Ms Gail Benson to the REGI team to provide research support and we are delighted to keep Gail with us for a further 6 months.

Our Biostatistics Unit has continued to provide on call support for research design and analysis and successfully commissioned a REDCap server to support Barwon Health staff conducting research and requiring data management and capture.

At the end of 2014, Barwon Health launched the Education Education Training and Research Profile Fund (ETRPF ) to support the growth of our academic profile and to facilitate evidence based practice and innovation in health care. The ETRPF was highly successful and attracted a large number of applications from a broad cross section of the Barwon Health community. Successful applications are listed in this edition of our newsletter along with a fascinating report from this year’s ETRPF Post Graduate Study Scholarship winner, Ms Jennifer Black on her research project - Intelligent Kindness. Congratulations to all applicants and look out for round two coming soon. Congratulations also go to Ms Lisa Ann Bell, this year’s recipient of the Sydney Parker Smith Research Scholarship.

Also in this edition Prof R Page “Shoulders research into action” and we hear from Julian Toscano and Dr Andrew Hughes on the success of the Clinicians in Redesign program. I hope you enjoy these reports along with words of wisdom from our resident Biostatisticus sapiens and our usual publication highlights.

As preparations for this year’s Barwon Health –Deakin Research Week get under way I encourage all researchers to submit entries for our poster competition and why not get a team entry into this year’s new event- the Inaugural Barwon Health-Deakin Ethics debate.

Look out for further reminders and key dates for research week and I look forward to celebrating our research achievements with you in November.

Professor Frances Quirk
Director of Research

Table of Contents

Inaugural Education, Training and Research Profile Fund
Sydney Parker Smith Research Scholarships
Research Highlights
Research in the News
Biostatisticus Sapiens
Selected Publications
Upcoming Events
Inaugural Education, Training and Research Profile Fund

In September 2014, following the renaming of The Geelong Hospital to University Hospital Geelong, and in line with the strategic direction of Barwon Health, the CEO established the Education, Training and Research Profile Fund, an annual competitive financial grant, to support and build on the academic profile of Barwon Health. Awards in the five categories are listed below.

Congratulations to each of the following successful applicants:

**Category A – Clinical Education and Training and/or Research Buy-Out Time for Health Professionals**

Nicky Robson
Manager/Speech Pathologist.

*Development of communication resources to assist members of acute health-care teams to communicate with their communication impaired consumers.*

Donna Lever
Cancer Services - Survivorship Nurse Consultant.

*Surviving Cancer – what is the experience for the younger adult living in regional or rural Australia?*

Daniel O’Brien
Dept. Infectious Diseases - Deputy Director.

*Improving the safety and effectiveness of Mycobacterium ulcerans treatment on the Bellarine Peninsula.*

**Category B – Support or Seed Funding for Clinical Education and Training and/or Research Projects**

Steve Lane
Senior Biostatistics Officer.

*Statistical capability building for Barwon Health researchers*

Sue Smith
Nursing Education & Training, Clinical Education & Training.

*Med- Mid Model, exploring a model for interdisciplinary clinical placement in birth suite.*

Teng Fong
ALCC Haematology

*‘Double Hit’ Diffuse Large B-Cell Lymphoma Study*

Richard Page
Orthopaedic Surgeon

*The Adhesive Capsulitis Biomarker (Ad-CaB) Study*

Mark Kotowicz

*Features of the Metabolic Syndrome and risk of subsequent Gestational Diabetes Mellitus*

Ann Ritchie
Regional Health Library.

*Research Data Management and Research Librarian Mentorship*

Giuliana Fuscaldo
Research Ethics, Governance & Integrity Unit – Manager.

*Building Capacity and Regional Leadership in Clinical Ethics*

Heather Cameron
Projects & Service Development, Clinical Education and Training Unit.

*Social and Emotional Learning for Interdisciplinary Health Clinicians; educating for clinical excellence*

Amanda Wade
Infectious Disease Physician.

*Models of care for hepatitis C treatment: comparing hepatitis C care and treatment in a primary health care service compared with a tertiary hospital, The Prime Study*

Fiona Collier
Research Manager, Senior Scientist.

*Pregnancy Sex Hormone Levels: Do they influence Immune Cell Development in the Newborn and Modulate the Risk of Food Allergy?*

Jason Hodge
Research Fellow, Lead Laboratory Investigator.

*Assessment of 2 novel IDH mutant inhibitors in treatment of glioma*

**Category C – The Visiting Scholars**

**Grant: Funding for a 1 month to 3 month residency for a Clinical Education and Training and/or Research Visiting Scholar**

Kathryn Vick
Clinical Education & Training Allied Health - Manager / Lead Share.

*Innovation in Interprofessional Education: engaging learners and building a knowledge culture.*

Trisha Dunning
Director Centre Nursing & Allied Health Research.

*Professorial visit to foster clinical knowledge exchange and research collaboration in managing older people with diabetes within Barwon Health.*

Toni Hogg
Community Health & Rehabilitation Services, Clinical Director.

*Enhancing Rehabilitation Research at Barwon Health*

**Category D – Health Professional Postgraduate Study Scholarship**

Jennifer Black
MHDA, Inpatient, Aged & Residential Services.

*Intelligent Kindness as a catalyst for culture change in healthcare*

---

**Sydney Parker Smith Research Scholarship**

Congratulations to Ms Lisa Ann Bell, this year’s recipient of the Sydney Parker Smith Research Scholarship.

This scholarship was established in 2007 in memory of Sydney Parker Smith, a Geelong Pharmacist whose bequest to Barwon Health has provided for a research fund to enable novice researchers to develop research activities with direct relevance to the Barwon Health community.
Lisa completed her undergraduate training in dietetics, followed by Honours with the School of Exercise and Nutrition Sciences at Deakin University. This award will support Lisa to undertake a PhD project with Prof Peter Vuillermin’s team investigating the relationship between physical activity, sedentary behaviour and cardiovascular and respiratory health in preschool aged children.

‘The most exciting phrase to hear in science, the one that heralds new discoveries, is not “Eureka!” (“I found it!”) But rather “hmm....that’s funny”? - Isaac Asimov.

Contrary to what Asimov says, the most exciting phrase in science, the one that heralds new discoveries, is not ‘Eureka!’ OR ‘that’s funny’.

It’s, “Your research grant has been approved!”

- John Alejandro King,

Research Highlights

Shouldering Research into Action- Barwon Orthopaedic Research Unit (BORU) Gets Busy

Professor Richard Page as St John of God and Barwon Health Chair of Orthopaedics has enabled the BORU to build on its strong research platform.

Success in the Barwon Health ETRPF Grant round will assist a major new shoulder disease study get underway, the AD-CAB study in collaboration with Barwon Biomedical and the Centre for Molecular and Metabolic Research at Deakin University. This project will examine new and novel molecular and pathological factors that influence frozen shoulder, otherwise known as adhesive capsulitis. The condition affects between 2-5% of the normal population, but up to 20% of diabetics and is looked on as the most common musculoskeletal manifestation of diabetes. This local investigator initiated study is based on an elective surgical group suffering the condition and requiring surgery.

Tissue normally excised and discarded at surgery will be retained and frozen for analysis along with an intra-operative blood sample, avoiding additional injury or discomfort by participants. The samples will allow analysis for markers identified within the tissue samples that may enable a better guide to individual treatment and prognosis of the disease and further explore the links, particularly in more resistant disease.

BORU is also currently recruiting participants undergoing total knee joint replacement surgery to a local randomized controlled trial examining both the effect of tourniquet use on functional outcome and in collaboration with the Department of Anaesthetics the impact of standardised nerve catheters for analgesia on function and post-operative pain.

The Unit is a major recruiting centre for surgical trails assessing new prosthetic technology in shoulder replacement surgery, contemporary joint replacement for of proximal femoral fractures with McMaster University in Canada (The HEALTH Study), developing an enhanced patient centered care model of follow up of the rapidly growing cohort of patients undergoing joint replacement surgery in Australia (The Remote Joint Review Project) and describing new shoulder pathologies and their arthroscopic management.

The year ahead looks busy but bright with even more collaborations on the table in the fields of osteoporosis research, joint kinematics, engineering and robotics in surgery.

For enquires or further information please contact Sally Beattie, RN Research Coordinator for BORU – ph. 03 4215 2208

Clinicians in Redesign Program

Dr Julian Toscano /Dr Andrew Hughes

For the past two years the Service Reform and Innovation Unit at Barwon health have run the Clinicians in Redesign program. This is a program in which Junior Medical Officers (JMOs) spend one of their 10 week rotations working on a redesign project.

The Program is also accredited with the Post Graduate Medical Council Victoria.

The key objectives for the clinicians in redesign rotation are:

1. To deliver a measurable and sustainable improvement;
2. To achieve a publication on the improvement project; and
3. To develop redesign and leadership capability to translate to their primary place of work

The program now has eight alumni and all eight have submitted their redesign piece for publication. Project focus areas to date have included:

- Improved Paging Process for Junior Doctors;
- Junior Medical officer shift-to-shift Handover;
- Criteria Led Discharge in Cardiology;
- Maximising the Junior Doctor role and support in the Emergency Department;
- Decreasing waste in cross matching blood for elective surgery;
"Bias Toward Yes" – Culture change for Medical staff;
The standardised ward round for general medicine;
“fight the Pressure” - Improving JMO role in pressure care and management;
Improving post-operative fluid prescription in people with orthopaedic conditions.

The current project is focused on optimising the utilisation of interpreters’ organisation wide so to improve utilisation, improve outcomes for patients while remaining cost neutral.

Throughout the rotation the clinicians in redesign are coached by A/Prof Andrew Hughes (director of Gen Med) and Julian Toscano (Head of Service Reform and Innovation) in partnership with support from the Research office – particularly Dr Stephen Gill, Dr Stephen Lane and Dr Guiliana Fuscaldo who provide the JMO’s with guidance and expertise in the rigor required for research.

From the perspective of the program participants some of the benefits have been: being able to implement an improvement in the health care system with protected time to do so; learning about the management systems in health care organisations; learning about and completing the requirements to achieve a publication and; being able to include this experience in their resume to help them stand out from the crowd in the next stage of their career.

Within the next month an Allied Health clinician will be joining the clinicians in redesign program on an ongoing basis in periods of six month secondments. Anyone interested in learning more should contact Andrew Hughes or Julian Toscano.

Did you know?
REGI offers expedited review for projects with prior HREC approval from other NHMRC accredited HREC’s and for negligible risk projects (including audits) see our website http://www.barwonhealth.org.au/research/column-4/office-for-research

Intelligent Kindness as a catalyst for culture change in healthcare – Jennifer Black

Overview of Research Awarded the ETRFP Post Graduate Study Scholarship

Modern health reform asks organisations to transform their approach to be consumer centred; ensuring services embody kinship and promote compassionate relationships between clinicians and patients as demonstrated through kindness, empathy and connectedness. This requires a fundamental change in focus and a shift in attitude to one which prioritises organisational culture as equally important as efficiency and performance outcomes.

This PhD sets out to explore the concept of Intelligent Kindness and how it can be harnessed to drive organisational cultural change. The concept of Intelligent Kindness is emerging from the UK in response to high profile cases of health care organisations that have unravelled into neglect and abuse.

Ballatt and Campling (2011) describe the phenomenon and suggest that health services will be more efficient and effective if they can shift focus and resources to create conditions for their staff that foster a culture of Intelligent Kindness.

Intelligent Kindness is a philosophy that values kinship and kindness, understanding not only their creative and motivating power but what inhibits or liberates kindness at an individual, team, organisational or interagency level. It is the application of this understanding that can guide leaders to enable effective cultural change which harnesses this kinship approach.

As leaders we need to be mindful of the often messy and painful nature of the work that staff encounter each day, and consider ways to enable staff to operate at their best. It is easy to lose sight of this in an environment which requires us to manage increased demands driven by health reform whilst at the same time feeling the pressures of financial efficiency.

The proposed research aims to build on the philosophy of Intelligent Kindness by defining effective behaviours and understanding the barriers and enablers to this phenomenon in an Australian setting. At present there is no tool which effectively measures an individual, team or organisational capacity for Intelligent Kindness. This research will explore the feasibility of the creation of a tool that will assist organisations to understand Intelligent Kindness within the context of their own environment. This can then be used to increase the effectiveness, uptake and deployment of Intelligent Kindness. It will help us understand whether a reinvestment in the values of kinship in healthcare will ultimately improve care; enhance the patient experience as well as address the issues of morale, effectiveness and efficiency.

Research in the News

The detection of a single molecule anchored to circulating extracellular vesicles allows late-stage pancreatic cancer to be identified from just one drop of a patient’s blood.

In a paper published in Nature on 24th June, Melo et al.1 Describe a non-invasive test that identifies patients with late-stage pancreatic cancer with 100% certainty, and that can distinguish patients with precancerous pancreatic lesions from those with benign pancreatic diseases. Although the number of patients in the precancerous lesion group was low, and the findings require further validation in a larger cohort, the potential implications of such a test are...
Personalized melanoma vaccines marshal powerful immune response

April 2, 2015 by Caroline Arbanas

Personalized melanoma vaccines can be used to marshal a powerful immune response against unique mutations in patients’ tumours, according to early data from a first-in-people clinical trial at Washington University School of Medicine in St. Louis.

The tailor-made vaccines, given to three patients with advanced melanoma, appeared to increase the number and diversity of cancer-fighting T cells responding to the tumours. The finding is a boost to cancer immunotherapy, a treatment strategy that unleashes the immune system to seek out and destroy cancer. The research is reported April 2 in Science Express, in a special issue devoted to cancer immunology and immunotherapy.

Prostate cancer research breakthrough from Sydney's Centenary Institute

ABC News by Ashley Hall 25 Mar 2015.

Researchers from the Origins of Cancer group have opened the door to a new treatment for prostate cancer which can starve cancer cells.

The breakthrough was discovered by a team led by Associate Professor Jeff Holst at Sydney’s Centenary Institute, which identified three specific nutrients that prostate cancer cells need to grow.

“What we’ve discovered this time around is that prostate cancer cells increase one of the pumps that bring a nutrient called glutamine into the cells,” Professor Holst said. “If we can block the pumps that bring glutamine into the cells, then we can actually starve the cancer cells and stop them from growing.”

Professor Holst said the next step involved identifying a drug to switch off the nutrient pump.

UK law on consent finally embraces the prudent patient standard


The UK Supreme Court’s decision in the Montgomery case is a landmark judgment, establishing beyond doubt the court’s commitment to protecting patients’ right to self-determination. The judgment concerns N dinde Montgomery, a woman with diabetes whose son was born with serious and permanent disabilities after a shoulder dystocia during delivery. Montgomery’s obstetrician had not warned her of the risk of shoulder dystocia during vaginal delivery or discussed alternatives such as caesarean section. The court held that the doctor should have done both: doctors have a duty to ensure that each patient is aware of any material risks of any recommended treatment and of any reasonable alternative treatments. The test of materiality is whether a reasonable person in that particular patient’s position would be likely to attach importance to the risk, or whether the doctor is—or should reasonably be—aware that that particular patient would be likely to attach importance to it. The message for clinicians is: know your patient and provide tailored information. The patient must be given sufficient information, but what constitutes sufficient? Two standards of disclosure have been employed: the professional standard (the court relies on medical opinion) and the “prudent patient” standard (the court considers what a reasonable person would want to know to make an informed choice). The courts do, however, move with the times, and there has been a gradual but steady shift away from the professional standard. The Montgomery case marks the final stage of the UK courts’ transition from the professional standard to the prudent patient standard.

Griffith University's Institute for Glycomics has developed a ground-breaking, combination vaccine that may finally beat Streptococcus A infections. Science Daily June 1, 2015

Human trials are set to begin, early as next year, for the vaccine which combines the protein, SpyCEP, with a previously developed vaccine J8-DT. Infections caused by Streptococcus pyogenes are responsible for the deaths of almost 500,000 people worldwide each year. It is particularly prevalent in developing countries and Indigenous populations, including Aboriginal people and Torres Strait Islanders.

Infections can range from tonsillitis and what is commonly known as 'schools sores', to life threatening diseases where deep tissues are infected. If left untreated infections can give rise to the very serious condition of rheumatic heart disease.

“We have successfully vaccinated mice with a vaccine that we believe will be suitable for humans,” said Professor Michael Good, Principal Research Leader at the Institute for Glycomics.
Biostatisticus sapiens  
(common: Biostatistician)  
By Stephen Lane

Bayesian Adaptive Designs

Are they truly no longer the domain for statisticians only?

Research design methodology—especially clinical and other research involving human participants—that can make better use of already limited resources should definitely be considered. Adaptive designs, outcome-adaptive randomization, dynamic treatment strategies and sequential multiple assignment randomization trials are some of the designs that are gaining momentum. But are Bayesian Adaptive Designs (BADs) really “no longer a dream for statisticians only”? as suggested by Gajewski et al. (2015)? I’m not really sure this is true, and perhaps their opening line should be seen more as clickbait, as the authors really do not provide any solid evidence for this assertion. At a superficial level, the first three named authors all have statistics PhDs, and the article is published in Statistics in Medicine, a high-ranking journal focusing on (funnily enough) statistics in medicine!

So who then, are BADs for? Gajewski et al. (2015) don’t really say. The state that they are being published more in non-statistical journals, which “indicates that the time is right for the use of BAD but in all reality, I think you’re going to need a statistician to help you plan one. In their introduction, Gajewski et al. (2015) discuss that they will show how simulation quickly becomes the tool of choice because of its flexibility but without expertise in conducting simulation studies, such a research design is already unattainable, and still remains possible for only those research groups who have access to statistical expertise.

Gajewski et al. (2015) also point to a methodology statement by PCORI (Patient-Centered Outcomes Research Institute) Methodology Committee (2013), which is seen to encourage the use of BADs in patient centered outcomes research. This is great, as I think this sort of design is definitely useful, but it still doesn’t help bring the methodology out to the general researcher. If you are interested in BADs, then the PCORI methodology report is a good read, as I think it does touch on all the significant inclusions you’ll need in your statistical analysis plan for your study.

So... “no longer a dream for statisticians only”? Not quite. A good idea? Yes definitely!

References


Selected Recent Publications


Upcoming Events

Next BH HREC meeting
October 14, 2015
(Next Submission date September 30, 2015)

NHMRC updates

Notice of Intent for the NIH BRAIN Initiative call released
The Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative is managed through the National Institutes of Health (NIH) as part of a new U.S. Presidential focus aimed at revolutionising our understanding of the human brain. The NIH and NHMRC have agreed to cooperate in the BRAIN Initiative involving Australian and U.S. scientists. NIH has now released the Notice of Intent to Publish a Funding Opportunity Announcement for BRAIN Initiative: Foundations of Non-Invasive...
See full article...

NHMRC and ARC Statement on Open Researcher and Contributor ID (ORCID)
The National Health and Medical Research Council (NHMRC) and Australian Research Council (ARC) have released a statement encouraging all researchers applying for funding to have an ORCID identifier. More information on the NHMRC and ARC Statement on Open Researcher and Contributor ID (ORCID)
See full article...

Read updates on clinical trials initiatives
Minister for Health Sussan Ley launched the enhanced Australian ClinicalTrials.gov.au website on International Clinical Trials Day on 20 May. Read about what activities were held across Australia to celebrate International Clinical Trials Day on the Australian Clinical Trials website.

Lectures, talks and training opportunities

ARCS – Risk-Based Monitoring Summit 16 September 2015 Kirribilli Club, Sydney

Public Lecture – Solving the organ crisis ethically
25 Aug 2015 6:30–8:00PM Theatre A
Elisabeth Murdoch Building
Parkville
Join Peter Singer, Laureate Professor at the University of Melbourne and Professor of Bioethics at Princeton University and an expert panel including, Professor Julian Savulescu, Uehiro Chair in Practical Ethics at the University of Oxford, Dr Neera Bhatia, Lecturer in Law at Deakin University, Julian Koplin, PhD candidate at Monash University's Centre for Human Bioethics and William Isdale, Arts/Law Student at the University of Queensland and Academic Excellence Scholar and TJ Ryan Medallist and Scholar as they discuss Australian organ donation rates and examine the ethics of a broad range of policies that have been proposed to increase these rates.

Barwon Health Research Week
9th – 13th November 2015

Barwon/Deakin Ethics Debate
Love a good debate?
You could win $600!
Applications now open!
Applications Close: Friday 9 October 2015
Debate Date
Friday 13 November 2015
Time
12:30 – 1:30pm
Location
TTR Lecture Theatre, Geelong Clinical School

Education and Training Session –
To be held on Thursday the 12th November between 12 and 1pm in the Kitchener House Auditorium
Further education sessions to be advised

Research Week Competitions –
Now open – you can apply here –
https://www.surveymonkey.com/r/Research_Week_2015
Applications close on Monday the 14th of September

Poster Competition –
To be held on Wednesday 11th November between 2 and 4pm in the TTR Lecture Theatre
Applications close on Monday 14th September