Getting SHLiRPED: six years of data from the Sexual Health, Lifestyles and Relationship Program (SHLiRP), M Currie, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2011

Chlamydia Screening in Pharmacies (CSiP) study, L Deeks, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2011

Chlamydia Screening in Pharmacies (CSiP) study: Experience of pharmacy staff, L Deeks, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2011

A review of Chlamydia Contact Tracing Pilot Program in the Australian Capital Territory, A Baynes, Australasian Sexual Health Conference, Canberra, Australia 2011

Home and Away: Comparing In-clinic and Outreach Chlamydia testing, M Currie, Australasian Sexual Health Conference, Canberra, Australia 2011

How do graduating medical students rate their knowledge & skills in sexual health & HIV medicine? S Martin, Australasian Sexual Health Conference, Canberra, Australia 2011

Test of re-infection recalls – when computerised systems are not in use, what is viable? M Todkill, Australasian Sexual Health Conference, Canberra, Australia 2011

Catching gonorrhoea, M Sherley, Australasian Sexual Health Conference, Canberra, Australia 2011

Outreach Clinics: Uncovering undetected HIV and STI in the community, R Del Rosario, Australasian Sexual Health Conference, Canberra, Australia 2011

NAAT-based screening for Neisseria gonorrhoea is preferable to microbiological screening in men who have sex with men (MSM), M Sherley, Australasian Society of Infectious Diseases, Lorne, Victoria, Australia 2011

Carotid-femoral pulse Wave velocity, W Abhayaratna, Pulse of Asia, Beijing, China 2011

You can screen for Chlamydia just about anywhere: results from the act stamp out Chlamydia program 2009 – 2012, M Todkill, International Union against sexually transmitted infections World Congress, Melbourne, Australia 2012

Chlamydia Screening in Pharmacies (CSiP) study: views of young people, A Bell, Primary Health Care Research Conference, Canberra 2012

Exercise and postnatal emotional wellbeing: A randomised controlled trial comparing two exercise and support programs, M Currie, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Chlamydia Screening in Pharmacies (CSiP) study: views of young people, A Bell, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Clinical results from the chlamydia contact tracing pilot program, A Baynes, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

What do parents know about head lice? The Controlling Head Lice in Primary Schools (CHiPS) study, L Deeks, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Chlamydia Screening in Pharmacies (CSiP) study: Experience of pharmacy assistants, L Deeks, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Lessons learnt about conducting research in schools: The Controlling Head Lice in Primary Schools (CHiPS) study, M Currie, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Home and away: comparing in-clinic and outreach chlamydia testing, M Currie, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Catching head lice: The Controlling Head Lice in Primary Schools (CHiPS) study, M Currie, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

How do graduating medical students rate their knowledge & skills in sexual health & HIV medicine? S Martin, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Reproductive tract infections associated with vaginal discharge and their socio-demographic and reproductive determinants among clinic attendees in Bangladesh, S Rahman, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

NAAT-based screening for Neisseria gonorrhoea is preferable to microbiological screening in men who have sex with men (MSM), M Sherley, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Outreach clinics: uncovering undetected HIV and STIs in the community, R Del Rosario, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Outreach in Papua New Guinea, D Morgan, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012

Genital Alteration, HIV and Sexually Transmitted Infection [STI] Risk Reduction in PNG, D Morgan, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012
An estimation of the co-infection rate of Chlamydia trachomatis and Neisseria Gonorrhoea in patients attending a sexual health centre, S Woodward, Canberra Health Annual Research Meeting (CHARM), Canberra, Australia 2012


Diastolic Heart Failure, W Abhayaratna, Cardiac Society of Australia and New Zealand, Brisbane, Australia 2012

Echocardiography in Acute Heart Failure, W Abhayaratna, Cardiac Society of Australia and New Zealand, Brisbane, Australia 2012

**AWARDS**

ACT Health Human Research Ethics Committee and the ACT Health Directorate Research Office Award 2012 – AUIM. Most abstracts from a single unit.

Best Clinical Presentation - L Deeks & G Cooper. The Chlamydia Screening in Pharmacies Study. Pharmacy Australia Congress
BRIEF SUMMARY
The Cardiology Department undertakes research activities across a broad range from bench to bedside. These include studies that explore the underlying scientific basis for the control of the heart and circulation in health and disease, human studies examining the pathophysiology of disease, participation in clinical trials and the evaluation and synthesis of the scientific literature to distil guidelines that direct clinical practice throughout Australia. Much of our bench research is conducted in collaboration with colleagues at the Australian National University and the University of Western Australia. Research activity has been increasing over the last few years from a base that was primarily comprised of industry-sponsored clinical trials. We now conduct a substantial number of investigator driven research projects in addition to the clinical trial work. Our principal challenge is to maintain and expand research activity and output in the face of heavy and rapidly-growing clinical demand.

STAFF
Prof Leonard Arnolda, Director of Cardiology
Dr Ahmad Farshid, Interventional Cardiologist
Prof Walter Abhayaratna, Cardiology Consultant
Dr Ian Jeffery, Cardiology Consultant
Dr Ren Tan, Staff Specialist
Dr Darryl McGill, Staff Specialist, retired 2012
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Dr Christopher Allada, Visiting Cardiologist
Dr Mark Nolan, Cardiology Registrar
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Dr Rahul Samanta, Cardiology Registrar
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Dr Ahmed Rehmani, Cardiology Fellow
Dr Jaya Chandrasekhar, Cardiology Fellow
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Mr Russell Appeldorff, RN, Study Co-ordinator

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Yilu He, Undergraduate student

COLLABORATIVE ASSOCIATES
Australian National University
University of Western Australia
Duke Clinical Research Institute, USA
Flinders Clinical Research, South Australia

RESEARCH PROJECTS
ORIGIN. A multicenter, international, randomised, 2x2 factorial design study to evaluate the effects of Insulin Glargine versus standard care, and of Omega-3 Fatty Acids versus placebo, in reducing cardiovascular morbidity and mortality in high risk people with impaired fasting glucose, impaired glucose tolerance of early Type 2 Diabetes Mellitus. Aventis Pharma sponsored this study. The study commenced in January 2004 and was completed in November 2011.

Tracer. A study designed to address the effects of SCH 530348 when administered in addition to the standard of care for a minimum of one year in subjects with documented atherosclerotic disease and symptoms of acute coronary syndrome.

Freedom. A study to evaluate whether percutaneous coronary intervention (PCI) with drug-eluting stenting PCI/DES is more or less effective than the existing standard of care, coronary artery bypass surgery (CABG). Commenced in August 2006, ongoing.

Dal -Outcomes. A study to evaluate the effects of Dalcitrapib on cardiovascular risk in stable CHD patients with a recent ACS. Recruiting phase saw
30 patients enrolled. Study is currently in follow-up phase. Trial was terminated due to lack of efficacy. Study now completed.

**ICE.** International Collaboration on Endocarditis prospective cohort study of infective endocarditis.

**Stability.** A clinical outcomes study of Darapladib versus placebo in patients with chronic CHD to compare the incidence of major adverse cardiovascular events.

**Atmosphere.** A study to evaluate the efficacy and safety of both Aliskiren monotherapy and Aliskiren/Enalapril combination therapy compared to Enalapril monotherapy, on morbidity and mortality in patients with chronic heart failure.

**Signify.** A study to assess the effects of Ivabradine in patients with stable coronary artery disease without clinical heart failure. A randomised, double-blind, placebo-controlled, international, multicentre study.

**Alecardio.** A study to evaluate the potential of Aleglitizar to reduce cardiovascular risk in patients with a recent acute coronary syndrome (ACS) event and Type 2 Diabetes Mellitus (T2D).

**Solid.** A study to assess the outcomes of Darapladib versus placebo in subjects following acute coronary syndrome to compare the incidence of major adverse cardiovascular events (MACE).

**Vista.** A study to evaluate the safety and efficacy of short-term A-002 treatment in subjects with acute coronary syndromes. Currently have 12 patient enrolled. Study terminated early due to lack of efficacy.

**Rescue PCI after thrombolytics.** To show that the use of Bivalirudin has a lower rate of ACUITY bleeding and is equally efficacious compared to heparin (UFH/LMWH) and glycoprotein inhibitors as assessed by infarct size (cardiac marker area under the curve) in the setting of rescue PCI for failed reperfusion.

**Cantos.** A randomised, double-blind, placebo controlled, event-driven trial of quarterly subcutaneous Canakinumab in the prevention of recurrent cardiovascular events among stable post myocardial infarction patients with elevated hsCRP.

**FOURIER.** A double-blind, randomised, placebo controlled, multicenter study assessing the impact of additional LDL-cholesterol reduction on major cardiovascular events when AMG 145 is used in combination with statin therapy in patients with clinically evident cardiovascular disease. Recruitment is due to commence in 2013.

**TAKEDA 306.** A multicenter, randomised, double-blind, placebo-controlled, phase III study to evaluate cardiovascular outcomes of TAK-875, 50mg in addition to standard of care in subjects with Type 2 Diabetes and with cardiovascular disease or multiple risk factors for cardiovascular events. Recruitment is due to commence in 2013.

**6-12 months post Ptcia follow-up.** Commenced in January 2001 and is ongoing: P Marley, P Taverner, A Farshid

**Stentboost.** Assessment of optimal stent expansion with Stentboost after routine high pressure balloon inflation: A Farshid, J Chandrasekhar

**Direct.** Determine the effect of “direct ambulance admission to the cardiac catheterization laboratory (versus transfer to laboratory via emergency department) on Left Ventricular function in primary PCI”: A Farshid, R Samanta, A Rehmani

**Trans-radial access in coronary angiography registry (TRAC).** A prospective registry that compares data for patients having diagnostic coronary angiography via the femoral and radial access routes with regard to clinical, procedural and post procedural details, complications, patient and operator satisfaction and preference: A Farshid, J Chandrasekhar, Cardiac Catheter Lab, CCU nursing staff

**Valsalva Manoeuvre vs BNP in diagnosis of dyspnoea of unknown aetiology.** The hypothesis is that blood pressure changes secondary to Valsalva Manoeuvre would be at least as sensitive and specific as BNP in differentiating between cardiac and respiratory causes of shortness of breath: L Arnolda, R Samanta, B Moloi

**Stress troponin study.** Ischaemia-induced release of troponin during cardiac stress-exercise testing: R Tan

**Predictive value of electrocardiographic criteria for detection of left atrial enlargement compared to two-dimensional echocardiographic left atrial volume measurements – a prospective study:** A Farshid, R Samanta

**Absorb clinical experience program (ACE).** The ACE program is a familiarisation program and not a clinical trial. There is no control group. The ACE
program proposes to evaluate the clinical and procedural outcomes of percutaneous coronary implantation of the second generation Abbott bioresorbable vascular scaffold (BVS) by experienced interventional cardiologists in the real world setting: A Farshid, R Tan

Prasugrel versus Clopidogrel in STEMI patients undergoing primary PCI: A Rehani, R Samanta, A Farshid

Regulator of G protein signalling 5 (RGS5), is involved in pathological vessel remodelling in cancer. We have shown that RGS5 is required for blood pressure homeostasis and have demonstrated for the first time that RGS5-deficient mice have high blood pressure. Funded by NHMRC. A paper has been published in Circulation Research: R Ganss, L Arnolda, D McKitrick

Mapping genes contributing to cardiac hypertrophy in recombinant inbred strains of mouse. Cardiac hypertrophy is partly determined by genetic factors and is a major contributor to cardiac disease. We are using recombinant inbred mice from an international project, the collaborative cross, to identify genes contributing to cardiac hypertrophy. Funding from National Heart Foundation and Private Practice Fund: L Arnolda, G Morahan, Y Zhang

Diannexin in cardiac ischemia reperfusion injury. Phosphatidylserine (PS) is a cell plasma layer phospholipid that may have an integral role in microvascular obstruction. In the presence of hypoxia, it moves from the internal leaflet to the external leaflet of the plasma bilayer, where it plays a role in prothrombinases activation, platelet aggregation and inflammatory cell recruitment. Diannexin is a synthetic annexin-V homodimer with a longer half-life and greater affinity for PS than the native protein. We have shown that Diannexin reduces myocardial necrosis in a rat model of cardiac ischemia reperfusion injury: C O’Meara, L Arnolda, N Teoh, C Parrish

New cardiac ryanodine receptor inhibitors for the treatment of heart failure. There is compelling evidence that “leaky” RyR2 contribute to cardiac dysfunction and arrhythmias in heart failure. The focus of this research proposal is to investigate the mechanisms by which muscle specific GSTM2-2 modulates RyR2 function and to use this knowledge to develop lead compounds for the therapeutic modulation of RyR2: P Board, A Dulhunty, M Casarotto, L Arnolda, Y Zhang

Anthracyclines disrupt Ca2+ signalling in cardiomyocytes: a contribution to cardiac toxicity. Anthracyclines are effective anti-cancer drugs whose use is limited by cardiac toxicity. We will be examining the possibility that the mechanism of cardiac toxicity includes disrupted calcium signalling. Funded by NHMRC: N Beard, A Dulhunty, L Arnolda, Y Zhang

Cardiac complications of obesity and diabetes. We are examining heart function by echocardiography and measuring blood pressure in mice carrying an Alms1 mutation that results in overeating and obesity. This mutation occurred spontaneously in the Canberra Hospital animal house. The model has been labelled the Fat Ozzie and other groups are examining the liver and pancreas in this mouse: L Arnolda, Y Zhang

GUIDELINE DEVELOPMENT


This group have reviewed, synthesised the evidence and formulated guidelines for the management of absolute cardiovascular disease risk. These have been endorsed by the NHMRC and can be downloaded. Guidelines for the management of absolute cardiovascular disease risk, pp1-122, available at: http://strokefoundation.com.au/site/media/Absolute CVD_GL_webready.pdf

Developing Guidelines for the management of Hypertension: L Arnolda, (Chair, National Blood Pressure and Vascular Disease Advisory Committee) 2008 – ongoing. This group have reviewed, synthesised the evidence and formulated guidelines for the management of hypertension. Prof Arnolda contributed to the 2008 guidelines and was primarily responsible for the 2010 update. New guidelines are currently being formulated.

ABSTRACTS/PRESENTATIONS

Effect of enhanced sodium hydrogen exchangers subtype 1 activity on blood pressure in NOD mice, Poster, Y Zhang, Y He, G Morahan, L Arnolda, Health Annual Research Meeting. Canberra, Australia 2012

Blood pressure and cardiac weight increased in foz/fozmice compared with controls, Poster, N Teoh, G Farrell, L Arnolda, Health Annual Research Meeting, Canberra, Australia 2012

Sixty-four cases of stent thrombosis: A seven-year experience from the Australian Capital Territory, A Mishra, A Farshid, R Tan, S O’Connor, M Rahman, C Allada, D McGill, P Marley, L Arnolda
Improving Outcomes for Primary PCI in the Australian Capital Territory: A three-year registry, A Farshid, A Mishra, L Cox, R Tan, D McGill, S O’Connor, M Rahman, C Allada, L Arnolda

Reduced Radiation Dose and Contrast Use with Dual Axis Rotational Coronary Angiography, S Sahay, A Farshid, A Mishra, S O’Connor, R Tan, M Rahman, C Allada, D McGill, G Bright, A Baldwin

Which Echocardiographic Parameters Predict Mortality in ESRD patients? R Pathak, A Farshid, M Alasady, G Talaulikar, L Arnolda

Clinical Variables Precitive of Mortality in ESRD Patients, R Pathak, M Alasady, G Talaulikar, A Farshid

Early radial decompression protocol post transradial procedures is feasible in a busy Coronary Care Unit, J Chandrasekhar, P Taverner, CCU nursing staff

Effect of enhanced sodium hydrogen exchangers subtype 1 activity on blood pressure in NOD mice, Poster, Y Zhang, Y He, G Morahan, L Arnolda, The 24th Scientific Meeting of the International Society of Hypertension, Sydney, Australia 2012

Blood Pressure and Cardiac Weight Increased in foz/foz Mice Compared with Controls, Poster, Y Zhang, N Teoh, G Farrell, L Arnolda, The 24th Scientific Meeting of the International Society of Hypertension, Sydney, Australia 2012
BRIEF SUMMARY
The Population Health Division is committed to protecting and improving health outcomes for the people of the ACT through the delivery of public health, environmental health and health promoting activities and services. There are two branches in Population Health, as well as two offices: Health Improvement Branch, Health Protection Service, Executive Support Office and the Office of the Chief Health Officer.

In 2012 the Division drafted the Population Health Research Strategy providing strategic direction for population health research in the ACT. The Strategy focuses on developing a research agenda, building research capacity for population health and developing partnerships with our academic institutions to support research activities.

In 2012, the second NHMRC Partnership Centre for Better Health was established on the theme of ‘Systems Perspectives on Preventing Lifestyle-Related Chronic Health Problems’. The focus of the Partnership Centre’s investigator team will be the inter-relation of health and non-health systems with regard to primary prevention and chronic health problems. The Centre is jointly governed and funded, to the value of $20.6 million over five years, by NHMRC, the Australian National Preventive Health Agency (ANPHA), NSW Health Administration Corporation (NSW Health), ACT Health, the Hospitals Contribution Fund of Australia and the HCF Health and Medical Research Foundation.

STAFF
A/Prof Paul Kelly, Chief Health Officer and Executive Director, Population Health
Dr Andrew Pengilley, Director, Office of the Chief Health Officer
Mr John Woollard, Director, Health Protection Service
Ms Linda Halliday, A/g Director, Health Improvement Branch
Ms Laura McNeill, Executive Support

STUDENTS
Mr James Grech, B.App.Sc (Hons), University of Canberra. Supervisor: P Kelly
Mr Kaymann Cho, B.App.Sc (Hons), University of Canberra. Supervisor: M Gahan
Ms Julianna MacDonald, Bachelor of Social and Community Studies, University of Canberra. Supervisor: H Lilley
Dr Ranil Appuhamy, Master of Applied Epidemiology, Australian National University. Supervisor: P Kelly, S Davis

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Dr Tamsin Kelly, Assistant Professor, Faculty of Applied Science, University of Canberra
Dr Michelle Gahan, Assistant Professor, Faculty of Applied Science, University of Canberra
Mr Dennis McNevin, National Centre for Forensic Studies, University of Canberra
Ms Michelle Richardson, Forensics and Data Centres, Australian Federal Police
Ms Michelle Nelson, National Centre for Forensic Studies, University of Canberra
Mr Paul Kirkbride, Forensics and Data Centres, Australian Federal Police
Mr Paul Roffey, Forensics and Data Centres, Australian Federal Police
Prof Rachel Davey, Director Centre for Research and Action in Public Health, University of Canberra
Ms Gemma Wood, Senior Manager Data and Research, Community Services, Directorate ACT Government
A/Prof Cathy Banwell, NCEPH, Australian National University
A/Prof Sharon Freil, NCEPH, Australian National University
Prof Kaarin Anstey, Director, Centre for Research on Ageing, Health and Wellbeing, Australian National University
Dr Chris Hatherley, Project Manager, National quality dementia care initiative, Alzheimer’s Australia
RESEARCH PROJECTS

Development of screening and confirmation methods for synthetic cannabinoids in biological specimens. Evaluation of enzyme linked immuno-sorbent Assay (ELISA) as a screening technique. Develop LC/MS/MS method for legislated analogues and metabolites in biological specimens (e.g. urine): J Grech. 2012

Pathogens in illicit drugs: a health survey. There have been several instances around the world where intravenous heroin users have been killed or badly injured as a result of injection of heroin contaminated with anthrax. If heroin can become contaminated by anthrax there is the possibility that it, and other intravenous drugs, might become contaminated by other pathogens. This study will conduct a world-first survey of illicit drugs for the presence of anthrax and other pathogens. The Australian Federal Police Forensic and Data Centres electrospray ionisation mass spectrometer (ESI-MS “Plex-ID”) will be used to identify DNA from pathogenic microorganisms using high-resolution mass spectrometry using methods developed with Flinders University, for the extraction of genomic material from illicit drugs: K Cho. 2012

Surveillance for Shiga-toxin producing Escherichia coli (STEC) in the Australian Capital Territory. STEC are a bacterium that can cause severe gastroenteritis, with a small percentage of cases potentially developing life-threatening kidney failure. While of significant public health concern, no confirmatory faecal testing is currently performed in the ACT, meaning little is known about local disease incidence. A one year laboratory-based surveillance study is being conducted in collaboration with ACT Pathology, using an in-house STEC test developed with the assistance of SA Pathology. The project aims to deliver a local capacity to diagnose these infections and provide improved knowledge of the disease risk in the ACT and surrounds: C Moffatt, R Hundy, M Bryce, K Kennedy. 2011-2013

Creative concept testing - “Beyond Today” campaign. Testing potential effectiveness of creative concepts, branding and key messages among Aboriginal and Torres Strait Islanders living in the ACT and surrounding regions to quit smoking and take up a healthy lifestyle. This research will inform the most effective concept for meeting communication objectives and identify ways of improving the preferred concept for the “Beyond Today” social marketing campaign: Orima Research, M Hare, Y Poels. 2012

Five ways to wellbeing and healthy children’s initiative. Identify products and promotion strategies that can deliver behaviour, awareness and attitude changes among parents of children aged 0-8 years in order to: decrease the proportion of children at an unhealthy weight; increase the proportion of children participating in physical activity; increase children's consumption of vegetables by ½ a serve per day; and increase children's consumption of fruit by ¼ serve per day: Colmar Brunton Social Research, M Hare, Y Poels. 2011-2012

It’s Your Move ACT. It’s Your Move (IYM) ACT is a collaboration between Deakin University, ACT Health and ACT Education and Training Directorate. The ACT IYM initiative uses systems-thinking approaches and community capacity building to promote healthy eating, physical activity and healthy weight in ACT adolescents. The IYM project is being implemented in three ACT high schools (Melrose, Alfred Deakin High and Calwell High) with three control schools (Amaroo, Kingsford Smith and Gold Creek High School): B Swinburne, C Chikwendu. 2011-2014

What roles do time, money and social position play in driving participation in a workplace health program. Investigation into the temporal and financial barriers that prevent participation in workplace health promotion programs. Information will be used to identify solutions for workplaces and employees: C Banwell, L Strazdins, J Dixon, D Broom, M Hare, H Lilley, L Newman. 2012-2014

Geographical variation and spatial analysis of hospital admission rates for chronic diseases across the ACT. This project aims to explore the utility of GIS in identifying areas of need with the view to targeting interventions and planning service delivery. This study will focus on diabetes, chronic heart failure (CHF) and chronic obstructive pulmonary disease (COPD) and cancer. These diseases have been chosen because they are common, costly and continuing illnesses for which secondary prevention is known to be effective. A wide spectrum of primary and specialist services, acute and ambulatory care, community support services, as well as effective self-care, is needed for their successful management: R Davey, X Goldie, L Halliday, G Wood. 2012-2013

Australian Research Council linkage grant: Improving methods of grading, transferring and facilitating. This project aims to develop a model which will assist policy makers in accessing and assessing quality research to support their work in developing evidence based health policy through the following activities:

1. Improving methods of grading, transferring and facilitating translation of knowledge into policy through systematic review and development of a web-based tool for policy makers.
2. Determining how policy-makers identify, access, and use evidence in population health in order to develop tailored methods to promote, guide and enable the translation of population health research into policy.

3. Development of a model for research training that ‘enables’ research to be conducted in a manner that facilitates or optimises knowledge translation: Australian National University Centre for Aging Research and Wellbeing, Alzheimers Australia, ACT Health 2012-2015

**PRESENTATIONS**

Enantioseparation of Methylamphetamine by Capillary Electrophoresis: a Survey of the Synthetic Route of Methylamphetamine Samples Seized in the Australian Capital Territory (ACT), A Jones, D Pianca, J Dougherty, T Kelly, Society Of Forensic Toxicologists/The International Association of Forensic Toxicologists, San Francisco, USA, 2011


Methylamphetamine Samples Seized in the Australian Capital Territory (ACT), A Jones, D Pianca, J Dougherty, T Kelly, Australian and New Zealand Forensic Science Society 21st International Symposium on Forensic, Hobart, Australia 2012

Public Health Management of Communicable Diseases, R Hundy, R Appuhamy, Society of Hospital Pharmacists Australia, Canberra Australia 2012

Outbreak Management in Residential Aged Care Facilities, A Roberts-Witeveen, Villaggio S’ant Antonio Aged Care Facility Education Session, Canberra, Australia 2012

Outbreak Management in Residential Aged Care Facilities, R Hundy, Aged Care Workshop, Health Protection Service, Canberra, Australia 2012

Salmonella outbreaks linked to eggs in Australia, C Moffatt, Eggs and Health Meeting, NSW Health, Sydney, Australia 2012

Specimens, J Grech, J Whittall, T Kelly, Australian and New Zealand Forensic Science Society, Hobart, Australia 2012

Falls related injury in older people living in the ACT, C Baker, ACT Falls Forum, University of Canberra, Australia 2012

Trends in weight status, physical activity and nutrition in ACT year 6 primary school, L Newman, Canberra Health Annual Research Meeting, Canberra, Australia 2012

Findings from the ACT Healthy@Work Pilot, M Hare, Health Productivity Management Congress, Sydney, Australia 2012

Health promotion principles and strategies in action in a disadvantaged community, S Sherwood, Population Health Congress, Adelaide, Australia 2012

Findings from the ACT Healthy@Work Pilot (poster), T Shanley, Population Health Congress, Adelaide, Australia 2012


Questionnaire design short course, H Lilley, Health Directorate staff course, Canberra, Australia 2012

**AWARDS**

Australia Day Award - Immunisation Team, Communicable Disease Control Section, Awarded for the exceptional work of the immunisation team in implementing the National Immunisation Program.
BRIEF SUMMARY
The Clinical Trials Unit provides support for the conduct of clinical research at Canberra Hospital. The Unit currently has up to 40 active trials in varying stages ranging from ethics submissions to trial close outs. The number of participants in each trial varies from approximately 1 to 1000. These trials are pharmaceutical sponsored trials, observational and investigator led trials that are funded by grants such as the NHMRC.

STAFF
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Dr Wichat Srikusalanukul, Clinical Trials Coordinator
Dr Zuopeng Wu, Senior Research Officer
Ms Cate Revill, Administrative Assistant and Receptionist
Ms Emily Wilford, Clinical Trials Coordinator
Ms Karen Dzialdowski, Clinical Trials Coordinator
Ms Kate Hayes, Clinical Trials Coordinator
Ms Anthea Oon, Clinical Trials Coordinator
Ms Francesca Rochford, Clinical Trials Coordinator
Ms Janine Vickers, Clinical Trials Coordinator
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Ms Gillian Fox, Administrative Assistant
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Prof John McNeil, Head of School, Epidemiology and Preventive Medicine, Alfred Hospital, Monash University, VIC
Prof Simon Stewart Head of Preventive Cardiology, Baker IDI Heart and Diabetes Institute, Melbourne, VIC
Prof Thomas Marwick, Section Head Cardiovascular Imaging, Centre for Cardiovascular Imaging at the Cleveland Clinic, Ohio, USA
Prof David Thompson, Professor of Nursing, Cardiovascular Research Centre, Australian Catholic University, Melbourne, VIC
Prof James Sharman, Senior Research Fellow, Menzies Research Institute, Hobart, TAS

RESEARCH PROJECTS


Anchor - HZC102871. A 52-week efficacy and safety study to compare the effect of three dosage strengths of Fluticasone Furoate/GW642444 Inhalation Powder with GW642444 on the annual rate of exacerbations in subjects with chronic obstructive pulmonary disease (COPD): M Hurwitz, W Abhayaratna, S Ansary. 2009-2011

Artemis AF Loading. A randomised, international, multicentre, open-label study to document optimal timing of initiation of dronedarone TreatmEnt after conversion with loading dose of aMiodarone in patients with perSistent atrial fibrillation requiring conversion of AF: W Abhayaratna. 2010-2012


AusUVI. The Australian ultraviolet radiation & immunity study: A Swaminathan. 2010-2011

BP Guide. A randomised study to determine the value of central Blood Pressure for GUIDing managEment of hypertension: W Abhayaratna, B Rattray. 2011-2012


Garfield. Prospective, multicentre, international registry of male and female patients newly diagnosed with atrial fibrillation: W Abhayaratna. 2010-2014

Glacial - Q4883g. A phase III, multicentre, randomised, double-blind, placebo-controlled safety study of Xolair (Omalizumab) in patients with chronic idiopathic urticaria (CIU) who remain symptomatic despite treatment with H1 antihistamines, H2 blockers, and/or leukotriene receptor antagonists: M Cook, E Da Silva, A Baker. 2010-2013
Harmony 1 (179 Diabetes). A randomised, open-label, parallel-group, multicentre study to determine the efficacy and safety of Albiglutide as compared with Liraglutide in subjects with type 2 diabetes mellitus: C Nolan, D Wilson. 2010-2011

Hope 3 - Heart Outcomes Prevention Evaluation: W Abhayaratna. 2010-2017

IMI33-005-BMS. A phase IIb, double-blind, randomised, placebo-controlled, double-dummy, dose-ranging study to evaluate the clinical efficacy and safety of induction and maintenance therapy with BMS-945429 in subjects with moderate to severe Crohn’s disease: P Pavli, K Subramaniam, M Ooi, A Gupta. 2012-2016


JADW. A randomised, double-blind, placebo-controlled, phase III study evaluating the efficacy and safety of Baricitinib (LY3009104) in patients with moderately to severely active rheumatoid arthritis who have had an inadequate response to tumor necrosis factor inhibitors: A Dorai Raj, C Perera, K Tymms, K Khoo. 2012-2013

JADX. A randomised, double-blind, placebo-controlled, phase III study to evaluate the efficacy and safety of Baricitinib (LY3009104) in patients with inadequate response to conventional disease-modifying antirheumatic drugs with moderately to severely active rheumatoid arthritis: C Perera, K Tymms, K Khoo. 2012-2013


Rhythm-AF. International registry on cardioversion of atrial fibrillation: W Abhayaratna. 2010-2011


Saril-Ra (Mobility). A randomised, double-blind, placebo-controlled, multicentre, two-part, dose ranging and confirmatory study with an operationally seamless design, evaluating efficacy and safety of SAR153191 on top of Methotrexate (MTX) in patients with active rheumatoid arthritis who are inadequate responders to MTX therapy: A Dorai Raj, C Perera. 2010-2012

Saril-Ra-Extend (Ability). A multicentre, uncontrolled extension study evaluating efficacy and safety of SAR153191 on top of DMARDs in patients with active rheumatoid arthritis: A Dorai Raj, C Perera. 2011-2016


Smile. Phase IIa, 2:2:1 randomised, double-blind, placebo-controlled, parallel group, multicentre clinical trial to investigate the safety, efficacy and pharmacokinetics of recombinant human soluble Fc-gamma receptor Ilb (SM101) for intravenous application in the treatment of systemic lupus erythematosus (SLE) patients with or without a history of lupus nephritis: M Cook, E Da Silva, P Gatenby. 2011-2013

Takeda. A multicentre, randomised, double-blind, active-controlled study to evaluate the durability
of the efficacy and safety of Alogliptin compared to Glipizide when used in combination with Metformin in subjects with type 2 diabetes: C Nolan, W Abbayaratna, B Jacobson. 2009-2012

**Troponin.** High sensitivity cardiac troponin: is it present in blood in relatively minor, non-cardiac illnesses? W Abbayaratna, P Hickman, G Koerbin, J Potter. 2010-2015

**UCB – 088.** 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 anti-TNF-alpha 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: P Pavli, M Drini, J Manchanyake, V Pham, K Subramaniam, N Nordeen, M Ooi, T Hampe, A Gupta, A Hampe, F Grimpen. 2008-2015

**Uniti 1.** A phase III, randomised, double-blind, placebo-controlled, parallel-group, multicentre study to evaluate the safety and efficacy of Ustekinumab induction therapy in subjects with moderately to severely active Crohn’s disease who have failed or are intolerant to TNF antagonist therapy: P Pavli, K Subramaniam, N Nordeen, M Ooi, T Hampe, A Gupta. 2011-2013

**Uniti 2.** A phase III, randomised, double-blind, placebo-controlled, parallel-group, multicentre study to evaluate the safety and efficacy of Ustekinumab induction therapy in subjects with moderately to severely active Crohn’s disease: P Pavli, K Subramaniam, N Nordeen, M Ooi, T Hampe, A Gupta. 2011-2014

**Imuniti.** A phase III, randomised, double-blind, placebo controlled, parallel-group, multicentre study to evaluate the safety and efficacy of Ustekinumab maintenance therapy in subjects with moderately to severely active Crohn’s disease: P Pavli, K Subramaniam, N Nordeen, M Ooi, T Hampe, A Gupta. 2011-2017
BRIEF SUMMARY

The Endocrinology and Diabetes Department at Canberra Hospital is involved in investigator led and pharmaceutical industry sponsored clinical research. The Department also has a very active basic research laboratory that focuses on pancreatic islet biology with projects relevant to both type 1 and type 2 diabetes as well as diabetes in pregnancy. There is a strong focus on research training of both medical students and postgraduate research students. The Department collaborates widely in research across Canberra Hospital, the Australian National University and research groups both interstate and internationally.

STAFF

A/Prof Dennis Wilson, Clinical Director of Endocrinology
Prof Christopher Nolan, Director of ACT Diabetes Services
Dr Sumathy Perampalam, Endocrinologist
Dr Sonia Stanton, Endocrinologist
Dr Robert Schmidli, Endocrinologist
Dr Viviane Delgingaro-Augusto, Scientist
Dr Angeline Josiah, Biomedical Laboratory Assistant
Ms Hana Hanamoto, Biomedical Laboratory Assistant
Ms Beth Koehn, Biomedical Laboratory Assistant
Dr Aaron Simpson, Advanced Trainee in Endocrinology
Dr Lauren Baker, Advanced Trainee in Endocrinology
Dr Ganesh Chockalingham, Advanced Trainee in Endocrinology
Dr Jennifer Woo, Advanced Trainee in Endocrinology
Dr Beatrice Brennan, Basic Physician Trainee
Ms Dianne Roberts, Senior Nurse Lead Diabetes Service
Ms Libby Bancroft, Clinical Nurse Consultant Diabetes Service
Ms Jenny Gallagher, Diabetes Nurse Educator
Ms Michelle Angove, Diabetes Nurse Consultant

STUDENTS

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Ms Nicole Somi, MBBS, Australian National University. Supervisor: V Delghingaro-Augusto

COLLABORATIVE ASSOCIATES

Prof Geoff Farrell, Director, Liver Research, Canberra Hospital
Dr Ross Laybut, Group Leader, Metabolic Disease Research Group, Garvan Institute
A/Prof Sofianos Andrikopoulos, Group Leader, Diabetes Research, University of Melbourne
Dr Bruce Shadbolt, Director, Department of Epidemiology, Canberra Hospital
Prof Jane Dahlstrom, Anatomical Pathologist, Anatomical Pathology, Canberra Hospital
Prof Ted Maddess, Director, ARC Centre of Excellence in Vision Science, Australian National University
Prof David Ellwood, Deputy Dean, ANU Medical School, Australian National University
A/Prof Alison Kent, Neonatologist, Department of Neonatology, Canberra Hospital
A/Prof Peter Hickman, Director of Biochemical Pathology, Biochemical Pathology, Canberra Hospital
Prof Marc Prentki, Director, Montreal Diabetes Centre, University of Montreal
Prof Jenny Gunton, Group Leader, Immunology Program, Garvan Institute
A/Prof Trevor Biden, Director, Diabetes Signalling Group, Garvan Institute

RESEARCH PROJECTS

Placental responses to obesity and pregnancy outcomes (PROPOS). Maternal obesity increases the rates of adverse outcomes for both mothers and babies. The overall objective of this project is to examine placental adaptation to maternal obesity in the presence and absence of metabolic syndrome and/or excessive gestational weight gain and how this determines adverse pregnancy outcomes. This research is expected to improve outcomes of pregnancy in obese women: C Nolan, J Dahlstrom, D Ellwood, A Kent, C Bertoldi-Franco. 2012-2015

Role of islet β-cell failure in the pathogenesis of non-alcoholic steatohepatitis. Non-alcoholic fatty liver disease and its severe form steatohepatitis (NASH) are closely linked to obesity and type 2 diabetes (T2D). We hypothesised that the failure of pancreatic islet-cells to sustain adequate compensatory insulin secretion for chronic fuel excess causes NASH. This hypothesis will be studied in the obese foz/foz mice: C Nolan, G Farrell, V Delghingaro-Augusto. 2012-2014

Novel functional testing for early diabetic retinopathy. Multifocal pupilllographic objective perimetry (mfPOP) is a new functional eye test that is being assessed for its potential role in the screening and management of diabetic retinal disease: T Maddess, C Nolan, R Essex, A James, C Carle. 2012-2013

Beta-cell mass and function and type 1 diabetes and islet transplantation. The causes of islet beta-cell failure and loss during the pathogenesis of type 1 diabetes and following islet transplantation are multifactorial. The projects of this NHMRC/Juvenile Diabetes Research Foundation Program are linked to provide critical insights into the biology of the beta-cell, and what goes wrong to cause beta-cell failure and loss in this condition: S Grey, C Nolan, T Biden, R Laybutt, S Andrikopoulos. 2008-2012

Effect of intrauterine growth retardation on islet beta-cell development in the offspring. An adverse intrauterine environment can result in long term health issues for the offspring. In this study we are investigating the effects of intrauterine growth restriction in a rat model on the development, morphology and function of pancreatic islets in the offspring: C Nolan. 2009-2012

Biochemical basis of islet-beta cell compensation and failure in normal pregnancy and gestational diabetes mellitus. The overall aims of this project are to determine the mechanisms of islet-cell compensation for insulin resistance in normal pregnancy and why these fail in gestational diabetes mellitus (GDM). The research is particularly focusing on islet lipid metabolism and signalling in islets during pregnancy: C Nolan, JH Kim, V Delghingaro-Augusto. 2009-2012

The role of the glucocorticoid receptor in Duchenne Muscular Dystrophy. The purpose of this research is to provide significant insights into the mechanism of action of glucocorticoids in dystrophic muscle, particularly its effects on the NF-B signalling pathway. It will assess the potential usefulness of compounds with selective actions on the glucocorticoid receptor (causing less glucocorticoid-related side effects) in the treatment of Duchenne Muscular Dystrophy: T Huyhn, C Nolan. 2011-2013
The evaluation of changes in selected clinical outcomes, quality of life and treatment satisfaction of patients participating in an insulin dose self titration model of care. Two-year longitudinal study of 55 insulin naive patients commencing insulin. Completion date is expected to be sometime in 2015 depending on when last patient is recruited. An evaluation of the teaching model and titration protocols is also being undertaken: L Bancroft, W Mossman, V Mahood, E Wright. 2012-2015

**Type 1 diabetes education in children and adolescents**: a best practice parent/carer education implementation project in an acute hospital setting. The aim of this project was to ensure the education provided to parents/carers of children and adolescents with newly diagnosed type 1 diabetes at Canberra Hospital is based on the best available evidence. Previous education pathways were critically assessed following an audit, modified and then reassessed by a follow-up audit: M Angove, D Roberts, A Leach, R Pollard, A Lancaster, H Kang, J Gallagher. 2012-2013

**Audit of clinical practice**: the 75-g oral glucose tolerance test (OGTT) in pregnant women within the catchment of the ACT Diabetes Service (ACTDS). The aim of this project was to assess current practice and protocols for oral glucose tolerance testing in pregnancy in the ACT catchment area; to compare these with published internationally endorsed and Australasian Diabetes in Pregnancy Society (ADIPS) criteria; and to promote quality improvement in for oral glucose tolerance testing in pregnancy in this region: J Gallagher, L Boisseau, L Bancroft, J Langridge. 2011-2012

**Comparison of NN5401 with biphasic insulin aspart 30 in type 2 diabetes.** A 26-week, open-labelled, two-arm, parallel, randomised trial comparing efficacy and safety of NN5401 twice daily vs. biphasic insulin aspart (BIAsp) 30 twice daily both with or without metformin, with or without DPP-4 inhibitor, with or without pioglitazone in subjects with type 2 diabetes: D Wilson (Canberra Site). 2010-2011

**Novo-Nordisk Trial-ID: NN304-1687.** Efficacy and safety of insulin detemir versus NPH insulin in pregnant women with type 1 diabetes: C Nolan (Canberra Site). 2010-2011

**ADVANCE ON.** A post trial observational study extension to ADVANCE, a factorial randomised controlled trial of blood pressure lowering with a fixed low-dose perindopril-indapamide combination and intensive glucose control with a modified-release gliclazide (gliclazide MR)-based regimen for the prevention of vascular disease among high risk individuals with type 2 diabetes mellitus: C Nolan (Canberra Site). 2011-2013

**HARMONY (179).** A study to determine the efficacy and safety of Albiglutide as compared with Liraglutide in subjects with type 2 diabetes mellitus. Albiglutide has been shown to improve blood sugar control by acting on the pancreas to improve insulin secretion, and will be evaluated in this study to see if it is safe and can help people with type 2 diabetes: C Nolan (Canberra Site). 2010-2011

**Takeda SYR-322_305.** A multicenter, randomised, double-blind, active-controlled study to evaluate the durability of the efficacy and safety of Alogliptin compared to Glipizide when used in combination with Metformin in subjects with type 2 diabetes: C Nolan (Canberra Site). 2010-2012

**Quality of life with the use of insulin pumps in type 1 diabetes subjects.** A study of patients with type 1 diabetes converting from multiple daily injections of insulin to insulin pumps to determine the effect on their quality of life: N Somi, R Schmidli. 2011-2012

**Gestational diabetes prevalence in ACT ethnic migrant women.** Gestational diabetes mellitus appears to be increasing within some ethnic groups, particularly following recent immigration to Australia. This is an epidemiological study which aims to determine if this is the case in women developing gestational diabetes in Canberra: D Tohidi-Esfahani, C Nolan, C Baker, L Freebairn. 2012-2013

**Developing best practice for patients in the Diabetes Service High Risk Foot Clinic.** The ACT Health Diabetes Service High Risk Foot Clinic is working towards best practice to improve the outcomes for its patients at high risk of serious diabetic foot complications. This is an audit of recent activity of this clinic and how this measures against published best practice. H Zhuo, C Nolan, N Lou, K Storer. 2011-2012
Using focus groups to develop a health promotion program for Gestational Diabetes targeting South Asian women in Canberra. South Asian women have an increased risk of gestational diabetes. This project aims to develop a health promotion program aimed at preventing gestational diabetes in this at risk group. A series of focus groups will be conducted to inform the prevention program development: C Nolan, A Arora, A Josiah, C Unger, M Hare. 2011-2012

PRESENTATIONS

Comparison between macular and wide-field multifocal pupillography in early type 2 diabetes, F Sabeti, Australasian Ophthalmic and Vision Science Meeting, Melbourne, Australia 2011

Elevated blood lipids in diabetic pregnancy: do they act alone or in synergy with elevated blood glucose to cause harm? C Nolan, 6th International Symposium on Diabetes in Pregnancy, Salzburg, Austria 2011

Comparing knowledge and health behaviour of patients with type 2 diabetes mellitus across three different health care settings in the Australian Capital Territory, R Periera, Australian Diabetes Society Annual Scientific Meeting, Perth, Australia 2011

Intrauterine growth retardation with high fat diet in rats markedly disturbs islet morphology characterized by peri-islet inflammation, fibrosis and haemosiderosis, V Delghingaro-Augusto, Australian Diabetes Society Annual Scientific Meeting, Perth, Australia 2011

Expansion of beta cell mass and insulin secretion during pregnancy, C Nolan, American Diabetes Association Annual Scientific Sessions, San Diego, USA 2011

Female NODk and male and female C57BL/10 mice can compensate for severe induced defects in proinsulin processing, V Delghingaro-Augusto, American Diabetes Association Annual Scientific Sessions, Philadelphia, USA 2012

Baseline determinants of exenatide success or failure in type 2 diabetes, J Woo, Australian Diabetes Society Annual Scientific Meeting, Gold Coast, Australia 2012

Predictors of success or failure in the use of sitagliptin therapy in type 2 diabetes mellitus subjects, F Peer, Australian Diabetes Society Annual Scientific Meeting, Gold Coast, Australia 2012

Clinical utility of multifocal pupillographic objective perimetry in Type 1 diabetes, C Coombs, Australasian Ophthalmic and Vision Science Meeting, Melbourne, Australia 2012

Intrauterine growth retardation together with high fat diet markedly disturb islet morphology without loss of beta-cell mass or induction of diabetes in a rat model, V Delghingaro-Augusto, American Diabetes Association Annual Scientific Sessions, San Diego, USA 2012

Beta cell function in pregnancy, C Nolan, International Association of Diabetes in Pregnancy Study Groups and the Diabetes in Pregnancy Study Group of India, Scientific Meeting, Chennai, India 2012
BRIEF SUMMARY

Centre for Advances in Epidemiology and IT

The main focus of the Centre has been the creation of a sustainable growth model for knowledge generation in healthcare that has both discovery and efficiency as the primary drivers. Known as Turning Research into Practice (TRIP), the program has a three tier approach incorporating:

1. the research process;
2. generation of predictive models to improve individual patient outcomes; and
3. a focus on efficient service delivery using an evidence-based model.

STAFF

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Ms Ruiduan Wang, Consultant Treonic Pty Ltd
Mr Ali Khazaie Moghadam, Consultant Treonic Pty Ltd
Ms Jessica Penney, Consultant Treonic Pty Ltd
Ms Naomi Shadbolt, Consultant Treonic Pty Ltd
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STUDENTS

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Ms Jessica Penney, Hons, ANU School of Engineering and Computer Science
Ms Mercy Atem, Internship University of Canberra

COLLABORATIVE ASSOCIATES

A/Prof Jan Sonsoni, University of Wollongong, Australian Health Outcomes Collaboration
Professor Shirley Gregor, Australian National University, National Centre for Information Systems Research
University of Canberra, Research Centre for Nursing and Midwifery
Mr Tony Holland, CEO, OzHelp - a not-for-profit organisation supporting the health of the construction industry
Dr Rex Simmons, Director, Australian Multiple Sclerosis Longitudinal Study Group
Treonic Pty Ltd – providing the DiscoverQuick evaluation infrastructure

RESEARCH PROJECTS

Flagship projects have produced outstanding results. The CPAP Weaning Trial, involving the Canberra Hospital’s Neonatal Intensive Care Unit (Dr David Todd, Principal Investigator), Westmead Hospital and Royal Brisbane Hospital, provided strong evidence for a superior method in the weaning of pre-term babies off CPAP (now called CICADA). The findings were published in the Achieves of Childhood Diseases and ran as the lead article in the
July 2012 edition. The project was further honoured with the 2011 ACT Quality Award for Innovative Care.

Similar successes have emerged in orthopaedics around joint replacement, respiratory and sleep medicine in CPAP acclimatisation, gastroenterology in chronic liver disease, understanding the needs of people living with multiple sclerosis, macular hole surgery, and nursing management around pressure injuries. In the recent 2012, Canberra hospital accreditation the Pressure Injury Prevalence program run by the Research Centre for Nursing and Midwifery was awarded an Outstanding Achievement – the highest result possible in the national assessment scheme.

In addition to working with various clinical units to support making research matter to healthcare, the Centre has a keen interest in supporting students and recent graduates in their careers. The Centre supports the ANU Medical School clinical practice skills program in the delivery of the evidence based medicine component. Furthermore, the Centre collaborates on numerous medical school student research projects each year to help ensure the projects meet a high standard – for example, in 2012 Caroline To won the inaugural John Buckingham Prize.

Treonic Pty Ltd supports the Canberra Health Annual Research Meeting (CHARM), sponsoring the DiscoverQuick prize each year. Furthermore, Treonic draws on its consultants from the ANU, engaging students or recent graduates in an endeavour to support their skills development and young careers.

The Australian Health Outcomes collaboration contributed significantly to Australia’s healthcare undertaking a number of pivotal consultancies for Government; in particular the Australian Incontinency Project indentifying levels of need and health issues among those living with incontinence.

In 2011, the Centre co-convened with the Wollongong University the “Professor John Ware Seminar Series”. Professor John Ware from the University of Massachusetts Medical School is best known for his work in the development of the SF-36. The seminars were presented in Canberra, Adelaide, Sydney and Brisbane. From the large numbers attending and participant feedback the series was a great success and helped bring Australia up-to-date on the latest developments in patient reported outcome measurement.

During 2011-2012 a number of postgraduate students were under the supervision of the Centre, including Ruiduan Wang (PhD Supervision), Rebecca Reay (PhD supervision completed 2012), Martin Dobes (MPhil supervision completed 2012).

The Centre has a healthy association with industry and the benefits that can be made for the delivery of better healthcare. Its collaborative associate
**BRIEF SUMMARY**

The Intensive Care Research and Data Office has three fulltime equivalent Research Coordinators and supports the conduct of more than 20 studies including an after hours service. Studies include a wide variety of industry and pharmaceutical sponsored research as well as a number of in-house research projects in the critical care environment. The group also provides ongoing support to numerous students undergoing research projects as part of their studies.

**STAFF**

A/Prof Imogen Mitchell, Director, Intensive Care Unit (ICU), Associate Professor, Australian National University

A/Prof Frank van Haren, ICU Consultant, Chair Research Executive Committee (REX), Associate Professor, Australian National University

Dr Anne Leditschke, ICU Consultant

Dr Sumeet Rai, ICU Consultant

Dr Sean Chan, ICU Consultant

Dr Manoj Singh, ICU Consultant

Dr Kelvin Grove, ICU Consultant

Dr Simon Robertson, ICU Consultant

Dr Peter Velloza, ICU Senior Registrar

Ms Helen Rodgers, ICU Research Coordinator

Ms Josie Russell-Brown, ICU Research Coordinator

Ms Lori Delaney, ICU Research Coordinator

Ms Elisha Fulton, ICU Research Coordinator

Ms Amy Harney, ICU Research Coordinator

Ms Natalie Brook, ICU Research Coordinator

Ms Louise Herlihy, ICU Nutritionist

**STUDENTS**

Mr Sam Howard, BMBBS, Australian National University. Supervisor: I Mitchell

Ms Debbie Ems, BMBBS, Australian National University. Supervisor: I Mitchell

Ms Bernie Bissett, PhD, University of Queensland. Supervisor: A Ledischke

Ms Emma Borg, BMBBS, Australian National University. Supervisor: A Ledischke

Mr Nathan Williams, BMBBS, Australian National University. Supervisor: A Ledischke

Ms Elizabeth Cole, BMBBS, Australian National University. Supervisor: A Ledischke

Mr Ben Verstandig, BMBBS, Australian National University. Supervisor: F van Haren

Ms Jennifer Porteous, BMBBS, Australian National University. Supervisor: F van Haren

Ms Jade Lee, BMBBS, Australian National University. Supervisor: S Robertson

Ms Luani Barge, BMBBS, Australian National University. Supervisor: S Robertson

**RESEARCH PROJECTS**

**ARISE** - a multi-centre, randomised, controlled trial of early goal directed therapy in patients admitted to ED with severe sepsis. Early goal directed therapy is compared to standard care for septic patients including fluids and inotropes. The early goal directed therapy is given within six hours of presentation to ED and is a stricter control protocolised care: K Grove, I Mitchell. 2009-2014

**BLISS** - a sub-study of ARISE investigating the presence of DNA from bacteria in septic patients’ blood. This study is looking at inflammatory and genetic markers of sepsis: I Mitchell. 2011-2014

**TARGET** - hypercaloric vs standard calorie nasogastric feeding in ICU. Double blinded feasibility study: S Rai, F van Haren. 2012-2013

**EPO TBI** - large multi-centre, randomised, controlled trial of Erythropoietin in patients with severe traumatic brain injuries. Treatment is 3x doses of Erythropoietin or placebo over a three week period in ICU only. First dose must be given within 24 hours post trauma. Close monitoring for clotting
essential. Regular ultrasounds are performed on all patients. I Mitchell, M Singh, F van Haren: 2010-2014

**BLING** - a phase IIb, randomised, controlled trial of continuous beta-lactam infusion compared with intermittent beta-lactam dosing in critically ill patients: F van Haren, P Velloza. 2012-2013

**CHEST.** This was a study to determine the effects of intravenous fluid resuscitation with 6% Hydroxyethyl Starch (130/0.4) in Sodium Chloride Solutions compared to 0.9% Sodium Chloride alone on all-cause mortality in critically ill patients: I Mitchell, S Chan. 2010-2012

**DAHLIA** - a randomised, double-blind, multicentre, placebo controlled trial of Dexmedetomidine for patients with agitation and delirium in the intensive care unit: F van Haren. 2012-2013

**IMT** (Inspiratory Muscle Training). This study aims to determine whether specific exercises for the breathing muscles shorten the time to breathing without a ventilator in patients who are mechanically ventilated for more than one week: B Bissett, A Leditschke. 2011-2014


**Histones in Sepsis - quantification of histones and microparticles in blood of septic patients.** Research group at ANU discovered compound ES21 binds with histones and allows them to be excreted. Looking to determine whether ES21 reduces Histone mediated injury: C O’Meara, F van Haren, I Mitchell. 2012

**GSK Flu.** An open-Label, multi-centre, single arm study to evaluate the safety and tolerability of intravenous Zanamivir in the treatment of hospitalised adult, adolescent and paediatric subjects with confirmed influenza infection: I Mitchell, F van Haren. 2009-ongoing

**Prowess Shock.** A randomised, double-blind, placebo-controlled, multicentre, phase III study assessing the efficacy and safety of Drotrecogin Alfa (Activated), administered as a continuous 96-hour infusion, in adult patients with septic shock: A Leditschke, I Mitchell. 2009-2011

**Pre-deliric.** A delirium study to validate the PRE-DELIRIC model in international multi-centres and to develop and validate a new model that is able to predict delirium sufficiently immediately after ICU admission: F van Haren. 2012-2013

**ICON.** A prospective audit of patients during May 2012. ICON to describe the patient populations including incidence and progression of organ failure in critically ill patients hospitalised in ICUs around the globe: F van Haren. 2012

**Point Prevalence.** The ANZICS Clinical Trials Group Point Prevalence Program provides a mechanism to efficiently conduct simple one day observational audits or ‘snapshots’ of intensive care practice which can be used for the development of future research initiatives, while minimizing the impact upon participating ICUs by bundling point prevalence studies together and by using standardised data collection tools: I Mitchell, F van Haren. 2011-2013

**PRESENTATIONS**


Recognising and Responding to Clinical Deterioration, I Mitchell, Lecture Tour, Dublin, Cork, Tralee, Galway 2011

Translation of Research into Clinical Practice, I Mitchell, Australian and New Zealand Intensive Care Society (ANZICS) Clinical Trials Group, Spring Forum 2011

Women in Medicine, I Mitchell, Asia-Pacific Intensive Care Conference, Chiba, Japan 2011

Acute Liver Failure, I Mitchell, Asia-Pacific Intensive Care Conference, Chiba, Japan 2011

Putting the Chart into Perspective. I Mitchell, International Conference on Rapid Response Systems and Medical Emergency Teams, Sydney, Australia 2011


Which acute hospitals should not have a rapid response system? I Mitchell, International Conference on Rapid Response Systems and Medical Emergency Teams, Sydney, Australia 2011


The Development and Implementation of the COMPASS program, I Mitchell, Patient Safety Initiatives Health Improvement, Edinburgh, Scotland 2011
Specific inspiratory muscle training is safe in ED ventilator-dependant patients: a case series, B Bissett, A Leditschke, M Green, European Society of Intensive Care Medicine 24th Annual Scientific Meeting, Berlin, Germany 2011

Endoscopic findings in ICU patients during introduction of postpyloric feeding tubes, F van Haren, Regional Intensive Care Meeting. New Zealand 2011

Research Fraud and the impact on the use of resuscitation fluids, F van Hare, Waikato Hospital Ground Rounds, Hamilton, New Zealand 2011

Fluid management in septic patients, F van Haren, Advanced Course in Transfusion Alternatives, Taipei, Taiwan 2011

The Process of recognising and responding to patient deterioration: An observational study, A Leditschke, Canberra Health Annual Research Meeting, Canberra, Australia 2011

The Human Element of managing patient deterioration, A Leditschke, Canberra Health Annual Research Meeting, Canberra, Australia 2011

What influences the change in behaviour following the introduction of a multifaced intervention for the early recognition and response to patient deterioration? A Leditschke, Canberra Health Annual Research Meeting, Canberra, Australia 2011

To be (out of bed) or not to be (out of bed)? A Leditschke, College of Intensive Care Annual Scientific Meeting, Canberra, Australia 2011

Exercise capacity at ICU discharge predicts hospital discharge destination in long-term intensive care unit (ICU) patients, M Green, A Leditschke, I Mitchell, B Bissett, Australian and New Zealand Intensive Care Society Annual Scientific Meeting 2011

Mobility Status at ICU discharge predicts hospital discharge destination in long-term Intensive Care Unit (ICU) patients, M Green, A Leditschke, N Williams, M Murray, M Walker, I Mitchell, B Bissett, European Society of Intensive Care Medicine 25th Annual Scientific Meeting, Lisbon, Portugal 2012

Asia Pacific Conference on Critical Care and International Board Review Course, F van Haren, New Delhi, India, 2012

Annual Queenstown Update in Anaesthesia, F van Haren, Queenstown, New Zealand 2012

Advances in Clinical Practice, F van Haren, Canberra Hospital Grand Round, Canberra, Australian 2012

The Art of Anaesthesia, F van Haren, Australian and New Zealand College of Anaesthetists (ANZCA) and Anaesthetists Society of Australia (ASA) Regional Meeting Canberra, Australia 2012

Indoanaesthesia, F van Haren, Jakarta, Indonesia 2012

International validation of the delirium prediction model for ICU patients (PRE-DELIRIC); a multicenter observational study, F van Haren, 32nd International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium 2012


Sodium Bicarbonate infusion to reduce cardiac surgery associated acute kidney injury; a phase II multi-centre, double-blind, randomised controlled trial, F van Haren, American Thoracic Society International Conference. San Francisco, USA 2012

Update in Intensive Care Medicine, F van Haren, Annual Queenstown Update in Anaesthesia (AQUA) Meeting, Queenstown, New Zealand 2012

Evidence based fluid management in sepsis, F van Haren, Abstract book, the Art of Anaesthesia Meeting, Canberra, Australia 2012

A Qualitative Study to Understand Behavioural Changes with a Deteriorating Patient System, A Leditschke, 7th Annual International Conference on Rapid Response Systems and Medical Emergency Teams, Sydney, Australia 2012

The Human Element of managing patient deterioration, A Leditschke, 7th Annual International Conference on Rapid Response Systems and Medical Emergency Teams, Sydney, Australia 2012

AWARDS

Professor Guan Chong Prize - B Bissett. Threshold inspiratory muscle training is safe in ED ventilated patients. Best Clinical Research Oral Presentation, Canberra Health Annual Research Meeting. Canberra Australia
BRIEF SUMMARY
The Neurology Department at Canberra Hospital is involved in research in a number of different areas. We are actively involved in clinical projects looking at stroke, and are collaborating widely to explore various areas of vision and eye movements as well as clinical disorders including stroke, multiple sclerosis and Parkinson’s disease.

STAFF
Prof Christian Lueck, Director Neurology Research Department
Dr Andrew Hughes, Senior Staff Specialist
Dr Chandi Das, Senior Staff Specialist
Dr Craig McColl, Senior Staff Specialist
Ms Angela Borbelj, Senior Neurophysiology Scientist
Senior Neurophysiology Technologist
Ms Kate Martin, Neurophysiology Scientist
Ms Dawn Nusa, Stroke Liaison Nurse
Dr Kate Ahmad, Advanced Trainee
Dr Salman Khan, Advanced Trainee
Dr Omar Ahmad, Consultant Neurologist
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STUDENTS
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Ms Neeranjali Jain, MBBS, University of New South Wales. Supervisor: C Lueck
Ms Swaranjali Jain, MBBS, University of New South Wales. Supervisor: C Lueck
Ms Eman Ali, Phil, Australian National University. Supervisor: C Lueck
Dr Diana Perriman, PhD, Australian National University. Supervisor: A Hughes
Ms Kiran Atmuri, MBBS, Australian National University. Supervisor: A Hughes

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Prof Craig Anderson, Neurologist, George Institute, University of Sydney
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Prof Ted Maddess, Head of Department, ARC Centre of Excellence in Vision Science, Australian National University
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Prof Paul Smith, Head of Department, Trauma and Orthopaedic Unit, Medical School, Australian National University
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Dr Andrew James, Senior Lecturer, ARC Centre of Excellence in Vision Science, Australian National University
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Dr Ross O’Neil, Senior Staff Specialist, Department of Radiology, Medical School, Australian National University
Dr Murali Guduguntla, Senior Staff Specialist, Department of Radiology, Medical School, Australian National University

RESEARCH PROJECTS

The use of eye movement measurement as a potential tool to study aging and degenerative disorders of the brain. The department has a research interest in looking at changes in eye movement parameters with aging, aiming to try to develop a useful biological marker of aging and degenerative diseases: C Lueck, I Williams, L Abel. 2007-2014

Multifocal visual evoked potentials and multifocal objective pupillometry in multiple sclerosis and other neurological diseases. The department is collaborating with the research school of biological sciences to determine whether mfVER and mfPOP might be useful adjuncts to, or even a replacement for, MRI in the management of multiple sclerosis and other neurological disorders: C Lueck, T Maddess, A James, E Ali. 2007-2017

The timing of anticoagulation in acute stroke presumed to result from an embolus from the heart in patients with atrial fibrillation. The department is in the process of setting up a multicentre trial (ACES) to try to determine the optimum timing of anticoagulation in this setting, a common clinical problem without an evidence based answer: C Lueck, A Hughes, R Lindley, C Anderson, T Neeman. 2007-2017

Biomarkers in transient ischaemic attacks. The department is looking at a promising biomarker for ischaemic brain damage which may assist in the diagnosis of acute stroke and TIA: C Lueck, R Martin, S Khan. 2008-2014

Finite element modelling of compression of the optic chiasm. The department is involved with a group of engineers at the Australian Defence Force Academy and an ophthalmologist in Belfast, UK, looking at finite element modelling of the process of compression of the optic chiasm by tumours in an effort to understand the phenomenon better. We are also involved in related pathological can radiological studies: C Lueck, A Neely, S Jain, M Tahtali, G McIlwaine, X Wang, N Jain, S Jain. 2008-2014

Finite element modelling of temperature in the human. The department is involved with a group of engineers at the Australian Defence Force Academy aiming to create a model of heat flow in the human brain which will inform the above studies using MR thermography: C Lueck, A Neely, M Tahtali, X Wang, T Lillicrap. 2009-2014

MR thermography. The department is involved in studying the potential use of MR imaging to measure the temperature of brains in vivo with a view to determining whether this has any predictive power in relation to stroke outcome. In addition, the group is attempting to develop a model of temperature exchange in the human brain. Both studies will have significant impact in relation to the use of hypothermia as a potential neuroprotective manoeuvre following stroke: C Lueck, C Levi, M Parsons, R Jyoti, T Neeman, T Lillicrap. 2009-2014

Investigation into thoracic kyphosis in stroke and normal aging. The department is collaborating with the Trauma and Orthopaedics Unit at the Canberra Hospital to study the development of increased kyphosis with ageing and stroke, and how this might be treated: C Lueck, A Hughes, P Smith, J Scarvell, D Perriman. 2008-2012

The use of Coaguchek as a tool for measuring coagulation urgently in thrombolysis patients. The department is investigating the possibly use of this tool in the emergency setting: C Lueck, A Hughes, I Harvey, D Nusa, O Ahmad. 2007-2014
Troponin in Acute Stroke. The department is investigating the effect of acute stroke on troponin levels: C Lueck, J Potter, P Hickman. 2012-2016

Clinical Audit. The department is actively engaged in various audits looking at different aspects of the management of stroke and other neurological conditions. This has generated several presentations and publications at National and International Meetings and peer-reviewed journals: C Lueck, A Hughes, C Das, C McColl, R Tuck, O Ahmad, K Ahmad, S Khan, D Nusa, T Neeman, A Borbelj, K Martin 2007-2017

Case reports. Members of the department have presented a number of case reports to various scientific meetings, and are at various stages in the process of preparing written papers for submission to peer-reviewed journals: C Lueck, A Hughes, C McColl, M Duncan, K Ahmad, S Khan. 2007-2017

The Hyperdense Middle Cerebral Artery Sign. The department has been looking at the detectability and clinical usefulness of this sign in the setting of acute ischaemic stroke: C Lueck, A Hughes, T Neeman, R O’Neil, M Guduguntla, P Aouad. 2007-2013

Other Clinical Research. The department has been involved in a number of investigator-led multicentre clinical trials including the Third International Stroke Trial and Interact-2: C Lueck, A Hughes, R Lindley, C Anderson, O Ahmad. 2007-2012

Presentations

The relationship between age-related hyperkyphosis and the frequency of movement in the thoracic spine: D Perriman, J Scarvell, A Hughes, C Lueck, T Neeman, P Smith, Canberra Health Annual Research Meeting, Canberra, Australia 2011

Multifocal objective pupil perimetry in multiple sclerosis: C Lueck, A Hughes, C Lueck, Canberra Health Annual Research Meeting, Canberra, Australia 2011

A comparison of saccade metrics with other clinical neurophysiological tests: Y Fang, A Borbelj, K Martin, R Cullen, C Lueck, Canberra Health Annual Research Meeting, Canberra, Australia 2011


Back extension exercises in prone lying may increase thoracic kyphosis – a preliminary study: D Perriman, J Scarvell, A Hughes, C Lueck, T Neeman, P Smith, Annual Conference of the Australian Physiotherapy Association, Brisbane, Australia 2011

The Relationship between Age-related Hyperkyphosis and the frequency of Movement in the Thoracic Spine: D Perriman, J Scarvell, A Hughes, C Lueck, T Neeman, P Smith, Annual Conference of the Australian Physiotherapy Association, Brisbane, Australia 2011


The relationship between age-related thoracic hyperkyphosis and the frequency of movement in the thoracic spine: D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith, Combined Scientific meeting of the New Zealand Orthopaedic Association and Australian Orthopaedic Association, Rotorua, New Zealand 2011

Prevalence and prognostic value of the dense middle and posterior cerebral artery signs in acute ischaemic stroke: P Aouad, A Hughes, Y Gawarikar, K Ahmad, R O’Neil, M Guduguntla, C Lueck, Annual Scientific Meeting of Australian and New Zealand Association of Neurologists, Hobart, Australia 2011
A randomised controlled trial of strengthening versus postural re-education for age-related thoracic hyperkyphosis: D Perriman, J Scarvell, A Hughes, C Lueck, T Neeman, P Smith, Canberra Health Annual Research Meeting, Canberra, Australia 2011

Prevalence and prognostic value of the dense middle and posterior cerebral artery signs in acute ischaemic stroke: P Aouad, A Hughes, Y Gawarikar, K Ahmad, R O’Neil, M Guduguntla, C Lueck, Canberra Health Annual Research Meeting, Canberra, Australia 2011

A comparison of thoracic and lumbar erector spinae activity during extension in prone lying and sitting: D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith, 17th Annual Scientific Meeting of the Australian & New Zealand Orthopaedic Research Society, Brisbane, Australia 2011


A finite element model of heat exchange in normal and ischaemic brain: T Lillicrap, A Neely, M Tahtali, N Barnes, C Lueck, Annual Scientific Meeting of the Stroke Society of Australasia, Adelaide, Australia 2011


Disorders of higher cortical function/visual processing: C Lueck, Asia Pacific Academy of Ophthalmology Congress, Sydney, Australia 2011

Controversies in neuro-ophthalmology: C Lueck, N Miller, A Pane, Should all patients with optic neuritis be investigated for neuromyelitis optica? Asia Pacific Academy of Ophthalmology Congress, Sydney, Australia 2011

Visual Fields and the Neurologist: C Lueck, Annual Scientific Meeting of Australian and New Zealand Association of Neurologists, Hobart, Australia 2011


A randomised controlled trial of strengthening versus postural re-education for age-related thoracic hyperkyphosis: D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith, Combined Scientific meeting of the New Zealand Orthopaedic Association and Australian Orthopaedic Association, Rotorua, New Zealand 2011

Movement frequency of the thoracic spine: implications for thoracic disc degeneration, D Perriman, J Scarvell, A Hughes, C Lueck, T Neeman, P Smith, World Forum for Spine Research, Helsinki, Finland 2012

A comparison of thoracic and lumbar erector spinae activity during extension in prone-lying and sitting, D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith, Canberra Health Annual Research Meeting, Canberra, Australia 2012

An evaluation of multidisciplinary stroke education sessions in the acute setting, D Nusa, M Coleman, E de Plater, A Dobby, M Girdlestone, M Pavlidou, C Lueck, Canberra Health Annual Research Meeting, Canberra, Australia 2012

An evaluation of multidisciplinary stroke education sessions in the acute setting, D Nusa, M Coleman, E de Plater, A Dobby, M Girdlestone, M Pavlidou, C Lueck,Annual Scientific Meeting of the Stroke Society of Australasia, Sydney, Australia 2011

Bilateral optic neuropathy following unilateral retrobulbar anaesthesia; a case report, K Ahmad, D McColl, M Duncan, C Lueck, 28th Annual Scientific Meeting of the Neuro-Ophtalmology Society of Australia, Melbourne, Australia 2012

A comparison of thoracic and lumbar erector spinae activity during extension in prone-lying and sitting, D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith, Australian Physiotherapy Association Annual Research Meeting, Canberra, Australia 2012


Modelling glutamate excitotoxicity in the Virtual Physiological Human, T Lillicrap, S Laranjeira, P Orlowksi, S Payne, A Neely, C Lueck, Annual Scientific Meeting of the Stroke Society of Australasia, Sydney, Australia 2012

Parametric studies of optic chiasmal compression biomechanics by finite element modelling, X Wang, A Neely, C Lueck, M Tahtali, G McIlwaine, T Lillicrap, 7th Australian Congress on Applied Mechanics, Adelaide, Australia


Challenging cases: “To see but not to understand”, C Lueck, 27th Asia Pacific Academy of Ophthalmology Congress, Busan, Korea 2012


AWARDS

ACT Health Research Office prize for best clinical research poster: Y Fang, A Borbelj, K Martin, R Cullen, C Lueck. A comparison of saccade metrics with other clinical neurophysiological tests. Canberra Health Annual Research Meeting, Canberra, Australia

Best Registrar Presentation Prize: S Khan, C Lueck. “Cyclothymic eyes”. 27th Annual Scientific Meeting of the Neuro-Ophtalmology Society of Australia, Adelaide

Best PhD Paper Presentation: D Perriman, J Scarvell, A Hughes, T Neeman, C Lueck, P Smith. A comparison of thoracic and lumbar erector spinae activity during extension in prone lying and sitting. 17th Annual Scientific Meeting of the Australian & New Zealand Orthopaedic Research Society, Brisbane, Australia
BRIEF SUMMARY
The Department of Neonatology at Canberra Hospital provides neonatal care to the ACT and surrounding NSW regions. Canberra Hospital has more than 3000 deliveries per year and is the principal referral centre for high risk pregnancies in the ACT and surrounding NSW region. The Department has a strong research culture. Medical and nursing staff actively participate in, and conduct, local and international research studies aimed at improving outcomes for neonates, staff and families. The Department is strongly represented at local and international research meetings disseminating research findings and knowledge to instigate evidence based practice in the Neonatal Intensive Care Unit. The Department collaborates with many departments within Canberra Hospital including, the departments of: Endocrinology, Anatomical Pathology, Medical Imaging, Nephrology, and Paediatric Surgery. There is national and international collaboration with research institutions including: Australian National University, University of Canberra, University of Queensland, Mater Mothers Research Institute, University of Sydney, Monash University and Children's Hospital of Eastern Ontario.

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A/Prof Abdel-Latif Mohamed, Staff Specialist
Dr Hazel Carlisle, Staff Specialist
Dr David Todd, Career Medical Officer
Mrs Margaret Broom, Neonatal Research Nurse
Ms Anna Brkic, Office Manager

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Ms Yue, BMBS, Australian National University. Supervisor: D Todd
Mr Cameron Maxwell, BMBS, Australian National University. Supervisor: Z Kecskes
Ms Rebecca Delaile, BMBS, Australian National University. Supervisor: Z Kecskes
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Ms Andrea Nicole-Rodrigues, BMBS, Australian National University. Supervisor: AL Mohamed
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A/Prof David Croaker, Paediatric Surgery, Australian National University Medical School, Canberra, Australia
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Prof Sue Kildea, Chair of Midwifery Research

and Mater Research Institute, Australian Catholic University and Mater Mothers’ Hospital, Brisbane, Australia
Dr Riccardo Natoli, Research School of Biology, Australian National University, Canberra, Australia
Ms Vicki Flenady, ANZSA Research, Mater Medical Research Institute, Brisbane, Australia

RESEARCH PROJECTS
Renin and aldosterone levels in neonates (RENAL study). To determine whether maternal hypertension and diabetes results in elevated neonatal renin and aldosterone levels and blood pressure: A Kent, J Dahlstrom, C Nolan, D Ellwood, P Hickman, M Broom. 2010-2013

BOOSTII (the benefits of oxygen saturation targeting study). A comparative study which examines exposure of severely premature infants (< 28wks) to lower and higher oxygen levels. Developmental follow-up to be conducted at two years. Now in follow up stage: G Reynolds, Z Kecskes, M Broom. 2008-2013

Follow up study from - methods of weaning CPAP in infants <30 weeks gestational age: A multicentre randomised controlled trial. Premature babies less than 30 weeks generally have some degree of respiratory distress; this is commonly due to an immature respiratory system. Unfortunately a small group of these babies will develop Chronic Lung Disease (CLD) and one cause of CLD is the method of Continuous Positive Airway Pressure (CPAP) weaning that has been used during intensive care period. It is also known that babies with CLD have poor respiratory outcomes, increased respiratory illnesses, and a greater likelihood of developing asthma or allergies during their childhood. Over the past three years a multi-centre randomised controlled trial on weaning premature babies off CPAP has been conducted in Canberra, Sydney and Brisbane. This study is the next stage in the trial aimed at reviewing the outcomes of CPAP weaning at three and five years of age: D Todd, M Broom, B Shadbolt. 2009-2013

Parental presence on bedside clinical rounds (PPBCR) in a NICU: a randomised crossed-over controlled trial. A randomised cross-over control trial will be undertaken in the NICU in which parents will be randomised into two groups. Each group will spend a week attending ward rounds, and a week not attending ward rounds, and will complete a NICU parental stressor scale (a validated tool) and a satisfaction survey including questions pertaining to parental presence at bedside clinical rounds (PPBCR): AL Mohamed, D Thomas, M Broom. 2011-2013
Facilitating change in a neonatal intensive care redevelopment: a participatory action research project. The aim of this study is to utilise participatory action research (PAR) methodology to successfully achieve the changes required to prepare nurses for the transition from an open plan NICU design to two cot pods: M Broom, Z Kecskes, S Kildea. 2011-2015

Survival and quality of neurodevelopmental outcomes of very preterm infants with protracted ventilation. The aim of this study is compare the mortality and adverse neurodevelopmental outcome between very preterm infants ventilated for a protracted period of time to those ventilated for shorter periods. Infants were taken from the ACT and NSW neonatal intensive care units (NICUS) database: H Carlisle, AL Mohamed, B Bajuk. 2011-2013

Placental metabolic responses to obesity. To determine placental metabolic responses to obesity with size and function of the placenta and resultant fetal effects: C Franco, C Nolan, D Ellwood, J Dahlstrom, A Kent. 2011-2014

RED ROP study. To examine safety and feasibility of using near infrared light treatment to prevent retinopathy of prematurity. A Kent, R Natoli, AL Mohamed, J Dahlstrom, K Valter, J Provis, R Essex: 2012-2013


Caesarean section and outcomes for extremely premature neonates - a population cohort study. To determine whether caesarean section for extremely preterm delivery is associated with improved survival and neurological outcome: A Kent, AL Mohamed. 2011-2012

Has the use of indomethacin changed over the past decade for treatment of a PDA - a population cohort study. To determine whether the use of indomethacin has decreased over the past decade with improved ventilation and CPAP strategies: A Kent, AL Mohamed. 2011-2012

Australian placental transfusion study (APTS). This study will compare two ways of caring for babies at birth. The first is standard practice - clamping the umbilical cord at birth immediately so that care of the baby, the second is to let the baby get extra blood by holding the baby below the level of the placenta and waiting for a minute or more before clamping the cord. This is called placental transfusion: AL Mohamed, M Broom, D Wing. 2011-2015

Skin assessment tool evaluation. In 2011 a skin risk assessment tool developed by the NICU nursing staff was introduced in the NICU. This study aims to evaluate the tool after 12 months of clinical use: M Broom, J McEwan, W Burton, Z Kecskes, AL Mohamed. 2012

Snapshot of the current and future NICU designs impact on workflow and practice. The study will include several different small research projects occurring over the same time in the NICU. When combined the study projects are planned to provide a snapshot of how the current and future NICU designs impact on workflow and practice.

The projects will include:
1. Total distance staff walk in a shift;
2. Measure environmental elements in the NICU (lighting, noise);
3. Relocation of neonates; 4. Impact of the NICU design (open planned/two cot rooms) on workflow and practice: M Broom, Z Kecskes. 2011-2013

Preeclampsia and risk of respiratory distress syndrome and bronchopulmonary dysplasia. To determine whether preeclampsia results in increased risk of bronchopulmonary dysplasia and poorer long-term neurological outcomes: A Kent, AL Mohamed. 2012-2014

Neonatal hypertension - long term outcome follow up study. To determine whether hypertension in the neonatal period is associated with ongoing cardiovascular/renal disease in children aged 2-10 years of age: A Kent, T Chaudhari. 2011-2012

Paracetamol duct action (PDA) trial: a randomised blinded placebo controlled trial.

Aim:
1. To study the effect of paracetamol given orally in closure of late PDA in premature neonates;
2. Examine the safety and efficacy profile of
Comparison of outcomes in premature infants with PDAs treated medically and surgically in NICUs with collocated surgical facility vs no surgical facilities. The aim of this study is to compare short and long-term outcome measures of extremely preterm infants (<29 weeks gestation) with PDAs managed in neonatal intensive care units with collocated surgical facilities and those without in New South Wales and the Australian Capital Territory. A retrospective audit of the prospectively collected data from the NSW and ACT Neonatal Intensive Care Units' data collection (NICUS): WSL Chan, H Carlisle 2012

Regional audit of hypernatraemic dehydration in neonates. To determine the incidence of hypernatraemic dehydration in neonates born at Canberra Hospital. Secondary outcomes include identifying risk factors with the aim to develop a scoring system to identify at risk neonates to prevent occurrence of the disorder: A Kent, N De Cure, R McCuaig, R Panagoda. 2012-2013

Pregnancy induced hypertension and placental diameters. To determine whether pregnancy induced hypertension affects the growth of the placenta along the short and long axis: A Kent, N Phad, J Dahlstrom. 2012-2013

Effect of antenatal steroids on survival, short term morbidity and neurological outcome. To determine if there is a difference in survival with no antenatal steroids compared to partial and complete antenatal steroid cover as well as long term neurological outcome: D Wong, AL Mohamed. 2011-2012

SIDS and Kids safe sleeping guidelines - is it practiced in the special care nursery and general paediatrics ward? To determine whether SIDS and Kids safe sleeping guidelines are practiced in the hospital environment: A Kent, J Griffin, A Heald, L Davidson. 2012-2013

Length of time from extubation to death in neonatal intensive care patients. To ascertain the time from extubation to death in neonatal intensive care patients to provide parents with information regarding what to expect in this event and to consider potential post cardiac death organ donation: A Kent, S Saha. 2011-2013

Ceasing CPAP at standard criteria (CICADA): method supported for CPAP in preterms. A retrospective study was undertaken to investigate whether preterm babies (PBs) <30 weeks gestation were negatively affected by ceasing CPAP at standard criteria (CICADA) compared to cycling off CPAP gradually or cycling off CPAP gradually and with low flow air/oxygen: D Todd, L Ying. 2011-2013

Efficacy, safety and cost benefits of home gavage feeding for preterm infants. This is a retrospective clinical audit of the efficacy, safety and cost benefits of home gavage feeding for preterm infants: C Maxwell, Z Kecskes. 2012-2014

A retrospective clinical audit of staphylococcus septicaemia in neonates. This is a retrospective clinical audit of staphylococcus septicaemia in neonates, use of type of antibiotics with the plan to review current antibiotic regimen: R Delaile, Z Kecskes. 2012-2014


Does rural or urban residence make a difference in neurodevelopmental outcomes of extremely preterm infants? Impact of rural or urban residence on the neurodevelopmental outcome of very preterm infants born between 1998 and 2004 - NSW and ACT experience: A Nicole-Rodrigues, AL Mohamed. 2012-2014

Open disclosure policy: principles in a case series from a NICU open disclosure policy. A case series from a NICU on open disclosure: K Mahoney, AL Mohamed. 2011-2013

Inotrope utilisation in the NICU. The aim of this study is to look at the management and outcomes of neonates admitted to Canberra Hospital NICU with hypotension; a retrospective clinical audit: R Dash, H Carlisle. 2011-2013

Family experiences in a 2 bedded NICU. In 2013 the NICU will move from an open plan ward to 2-bedded rooms. The aim of this project is to assess the family-friendliness of the new design: Z Kecskes, K Mebberson. 2012-2014

NEWS: a way to assess the deteriorating neonate. Early warning scores are used in adults and paediatrics to detect the deteriorating patient with the aim for early escalation and improvement of mortality and morbidity. A multi-trigger tool for neonates was developed at Canberra Hospital. This project aims to audit the neonatal charts, NEWS scores, escalation process and outcomes of neonates: Z Kecskes, S Ovington. 2012-2014
PRESENTATIONS

Is it still a disadvantage to be born male and extremely preterm in Australia? A Kent, Perinatal Society of Australia and New Zealand (PSANZ), Hobart, Australia

Is it still a disadvantage to be born male and extremely preterm in Australia? A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Increased numbers of podocytes are present in the urine of preterm infants treated with indomethacin suggesting drug, A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Podocytes are found in the urine of preterm infants receiving indomethacin treatment suggesting drug induced glomerular injury, A Kent, Fetal and Neonatal Physiological Society, Palm Cove, Australia

Is it still a disadvantage to be born male and extremely preterm? A Kent, Global Congress of Paediatric Health, Moscow, Russia

Neonatal hypertension - a long term follow up study, A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Can 670NM red light protect against retinopathy of prematurity and reduce lung injury in a neonatal animal model? A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Differences in mortality/morbidity with a complete course of antenatal steroids compared to an incomplete/no course in extremely premature neonates, A Kent, European Society of Paediatric Research, Istanbul, Turkey

Can 670nm Red Light Protect Against Retinopathy of Prematurity and Reduce Lung Injury in a Neonatal Animal Model. A Kent, European Society of Paediatric Research, Istanbul, Turkey

Does insulin treatment for hyperglycaemia in very preterm infants result in significant hypoglycaemic episodes? A Heald, PSANZ, Hobart, Australia

Does insulin treatment for hyperglycaemia in very preterm infants result in significant hypoglycaemic episodes? A Heald, Canberra Health Annual Research Meeting, Canberra, Australia

670nm Red Light: Protection Against Retinopathy of Prematurity, R Natoli, Australian Ophthalmology and Vision Science Meeting, Canberra, Australia

670nm Red Light: Protection Against Retinopathy of Prematurity and Low Developmental Weight, R Natololi, Australian Neuroscience Society Meeting, Gold Coast, Australia

Are podocytes in the urine of preterm infants a marker of drug induced glomerular injury? J Dahlstrom, Royal College of Pathologists of Australia (RCPA) Pathology Update, Sydney, Australia

Length of time from extubation to death in neonatal intensive care patients, S Suha, PSANZ, Sydney, Australia

Is it still a disadvantage to be born male and extremely preterm? A Kent, Global Congress of Paediatric Health, Moscow, Russia
Length of time from extubation to death in neonatal intensive care patients, A Kent, Global Congress of Paediatric Health, Moscow, Russia

A new therapeutic approach in the prevention of Retinopathy of Prematurity, K Valter, Annual Conference of the Hungarian Ophthalmic Society, Budapest, Hungary

Neonatal hypertension - a long term follow up study, A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Differences in mortality and morbidity with a complete course of antenatal steroids compared to incomplete/no antenatal steroids in extremely premature neonates, D Wong, Canberra Health Annual Research Meeting, Canberra, Australia

Can 670NM red light protect against retinopathy of prematurity and reduce lung injury in a neonatal animal model? A Kent, Canberra Health Annual Research Meeting, Canberra, Australia

Differences in mortality/morbidity with a complete course of antenatal steroids compared to an incomplete/no course in extremely premature neonates, A Kent, European Society of Paediatric Research, Istanbul, Turkey

Can 670nm Red Light Protect Against Retinopathy of Prematurity and Reduce Lung Injury in a Neonatal Animal Model, A Kent, European Society of Paediatric Research, Istanbul, Turkey

AWARDS

Professor Guan Chong Award for the Best Clinical Research Oral Presentation – A Kent, Can 670NM red light protect against retinopathy of prematurity and reduce lung injury in a neonatal animal model? Canberra Health Annual Research Meeting, August 2012
BRIEF SUMMARY

The Academic Unit of Ophthalmology continues its ongoing research activities, particularly in the field of clinical retinal disease and clinical outcomes monitoring. We have built a strong collaboration with the John Curtin School of Medical Research (JCSMR). We support JCSMR in its ongoing research activity investigating objective measures of retinal function, and novel uses of near infra-red light in protection from retinal disease. JCSMR, in turn, supports some of the research activity of the ophthalmic clinicians with co-supervision of one PhD student working on macular hole research. Between 2011 and 2012 clinical staff have published nine peer reviewed articles.

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A/Prof Ian McAllister, Retinal Surgeon, Lions Eye Institute, Perth

A/Prof Alex Hunyor Jr., Retinal Surgeon, Sydney Eye Hospital
Dr Tim Henderson, Ophthalmologist, Alice Springs Hospital

RESEARCH PROJECTS

Bilateral optic neuropathy following unilateral retrobulbar anaesthesia - a case report. Case report for publication. Involves Ophthalmology and Neurology Departments: K Ahmad, C McColl, M Duncan, C Lueck. 2012-2013

Dichoptic multifocal visual evoked potentials identify local retinal dysfunction in age-related macular degeneration: F Sabeti, A James, R Essex, T Maddess. 2011-2012


Myopic macular hole: R Essex. 2010-2011


Multifocal pupillography identifies ranibizumab-induced changes in retinal function for exudative age-related macular degeneration: F Sabeti, T Maddess, R Essex, A James. 2011-2012


Dexamethasone intravitreal implant in patients with macular oedema related to branch or central retinal vein occlusion twelve-month study results: J Haller, F Bandello, R Belfort Jr, M Blumenkranz, M Gillies, J Heier, A Loewenstein, Y Yoon, J Jiao, X Li, S Whitcup; Ozurdex GENEVA Study Group, J Li. 2010-2011


Retinal detachment project - To determine a national research dataset for the collection of clinical data for retinal detachments. Principal investigator Essex, on behalf of the Australian New Zealand Society of Retinal Surgeons: R Essex. 2012

Comparison of anterior lamellar recession to full thickness lid margin rotation for trachomatous trichiasis - Investigating the outcomes of two different Trachoma operations in Alice Springs: R Essex, T Henderson, K Barr

PRESENTATIONS
Healing of the Retinal Pigment Epithelium (RPE) Imaged ‘in vivo’ by Fundus Autofluorescence in a Series of Patients with RPE Tears, R Mendis, Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale, USA 2012

AWARDS
Novartis Prize - Best Poster Presentation - R Mendis. Healing Of The Retinal Pigment Epithelium (RPE) Imaged ‘in vivo’ by Fundus Autofluorescence in a Series of Patients with RPE Tears.
BRIEF SUMMARY

Our small department aims at paediatric clinical research, with a main focus in the research areas of Endocrinology and Immunology but not limited to these areas. This area has a strong focus on sponsor lead studies that have multiple sites around Australia and internationally. Our role in the Health Directorate is to perform clinical trials that improve medical management and outcomes for the children and their families under our care whilst forming strong collaborative ties to multiple centres and strengthening our knowledge base. The Unit also has a laboratory based research group. The focus of this group continues to be the gastrointestinal tract. There are several arms to this interest, mainly involving:

1. Constipation and its surgical causes and Hirschsprung’s disease, and
2. Review of gastroenterological conditions picked up at endoscopy.

There are several promising avenues for the work in constipation; clinical results continue to improve as a result of the ongoing work.

STAFF

Dr Tony Lafferty, Principal Investigator
A/Prof David Croaker, Paediatric Surgeon
A/Prof Graham Reynolds, Principal Investigator
Dr Tony Huynh, Sub Investigator
Dr Manina Pathak, Sub Investigator
Mrs Shannon Reakes, Study Coordinator
Mrs Sandra Gillett, Study Coordinator
Mrs Gillian Fox, Personal Assistant
Dr Rajeev Jyoti, Co-investigator

STUDENTS

Ms Eunice Gribben, PhD, thesis: “The role of peer support groups in anorectal malformations and Hirschsprung’s disease”. The thesis involves surveys of parent support groups, surgeons, and clinical review, and inter-relating these data to look at the role and cost effectiveness of parent and peer support groups for chronic illnesses, with particular reference to congenital bowel problems. Surveying of peer support groups and surgeons is underway. Ethical approval is currently being obtained for the clinical and retrospective review of patients with Hirschsprung’s disease and anorectal malformations in New South Wales and the ACT. Eunice has just presented a short paper at the paediatric colorectal club meeting in Frankfurt entitled: “term follow-up of paediatric anorectal anomalies and the role and efficacy of parent support groups for such conditions.”

Mr Ko-Chin Chen, Medical Student 2012, Research using micro CT scanning of brains of the spotting lethal rat. This work is a follow up work on work previously done in collaboration with Zan-Min Song on the effects of the endothelin B receptor mutation on brain development in the spotting lethal rat. The proposed title of the thesis is: “Effect of the endothelin B receptor mutation on intracranial structures in the spotting lethal rat.” We have mastered the staining of these specimens, and have obtained some early images. This work is being carried out with the help of the mathematics department at the Australian National University, who own the micro CT scanner. An abstract of the current work has been submitted to the World Federation of Associations of Pediatric Surgeons (WOFAPS) meeting in Berlin, Germany 2013.

Ms Jacqueline Lopez-Dee, MPhil candidate, Structure and function of the adrenal medulla in the Hirschsprung’s (spotting lethal) rat, and now in the human. This work has been a three year project and results on the rats were presented in Tokyo, Japan. We are now investigating catecholamine excretion in humans. We hope to complete collections during the next six months.
Dr Christian Beardsley, MPhil Candidate, Abdominal pain in childhood.
Ms Mushira Mokhtar, Heritability of constipation as a symptom; to look at the frequency of CFTR gene polymorphisms in the constipated population.
Ms Kan Yu Wu, Heritability of constipation as a symptom; to look at the frequency of CFTR gene polymorphisms in the constipated population. This project is to look for associations of constipation with family histories of irritable colon syndrome, colon cancer, and selected other gastrointestinal symptoms.
Ms Zainab Ridha, Heritability of constipation as a symptom; to look at the frequency of CFTR gene polymorphisms in the constipated population. This project is to look for associations of constipation with family histories of irritable colon syndrome, colon cancer, and selected other gastrointestinal symptoms. We will look also at the effectiveness of an exercise program as treatment for simple constipation in children.

COLLABORATIVE ASSOCIATES
Mr Jeffery Mahon, Chief Investigator, Trailnet Centre, USF Paediatric Epidemiology Centre University of South Florida
Prof Leonard Harrison, Chief Investigator, Director, Department of Clinical Immunology and Allergy, Melbourne Health, Diabetes Vaccine Development Centre
Prof Peter Coleman, Chief Investigator, Director, Department of Clinical Immunology and Allergy, Melbourne Health, Diabetes vaccine development Centre
Dr Jenny Couper, Principal Investigator, Department of Endocrinology and Diabetes Adelaide Woman & Children's Hospital
Dr Andrew Cotterill, Principal Investigator, Department of Endocrinology, Brisbane, Mater Children's Hospital
Dr Christine Rodder, Principal Investigator, Paediatric Endocrinology, Monash Medical Centre
Dr Liz Davis, Principal Investigator, Department of Endocrinology & Diabetes, Princess Margaret Hospital & Clinical Children's Research Facility
Dr Tim Jones, Principal Investigator, Department of Endocrinology & Diabetes, Princess Margaret Hospital & Clinical Children's Research Facility
Dr Kim Donohoe, Principal Investigator, Department of Endocrinology, The Children's Hospital Westmead
Dr Michelle Jack, Principal Investigator, Department of Endocrinology, Royal North Shore
Dr Craig Jefferies, Principal Investigator, University of Auckland, Liggin Institute
Prof Peter Davies, Chief Investigator, Merc Serono Australia, Merc Serono Geneva
Grant Morohan, Chief Investigator, Medical Research Foundation, Western Australia Institute for Medical Research
Frank Christianson, Chief Investigator, Department of Clinical Immunology, University of Western Australia
Tim Jones, Chief Investigator, Department of Paediatrics, University of Western Australia
Prof John Furness and Prof Heather Young, Dept of Anatomy and Neuroscience, University of Melbourne
Dr Zan Ming Song, John Curtin School of Medical Research, Australian National University

RESEARCH PROJECTS
easypodTM connect: an Australian multi-centre, observational registry to study adherence and long term outcomes of therapy in paediatric subjects using “easypodTM” electromechanical device for growth hormone (GH) treatment. This study is looking adherence and long term outcomes from the use of the easypod growth hormone device, this is an observation study looking and capturing the data collected on the easypod devices to analyse the data between adherence to drug and growth rates: T Lafferty, and Huynh. 2010 -2017
A randomised double-blind, placebo-controlled trial of intranasal insulin (40IU and 440IU) in children and young adults at risk of type 1 diabetes: intranasal insulin rrial II (INIT II). This is a clinical trial looking for relatives on type 1 diabetics who are deemed at high risk by the presence of antibodies, they are then randomised into a placebo/ nasal spray vaccine for a 12 month treatment period and five year follow up: T Lafferty, Tony Hh. 2008-2017
TrialNet natural history study of the development of type 1 diabetes (protocol TN-01). This study looks at the natural history in the progression of diabetes; the study base is relatives of individuals of type 1 diabetes: T Lafferty. 2007-2017
The australian childhood diabetes DNA repository. This study collected DNA saliva samples to bank for future studies into the genealogy of the development of diabetes: T Lafferty, T Campbell, C Nolan. 2012
A phase II, non-randomised, open-label study to evaluate the safety and immunogenicity of the adjuvanted (pre-) pandemic H5N1 influenza candidate vaccine following a heterologous prime-boost schedule (six months apart) in children aged six to 35 months. The study is designed to assess the booster response of the H5N1 influenza candidate vaccine, following a 2-dose primary vaccination. A heterologous prime-boost vaccination schedule is proposed as this is most relevant from a public health perspective mimicking a possible vaccination scenario using stockpiled subtype-specific vaccine followed later by a pandemic strain-specific vaccine: G Reynolds, T Lafferty. 2010-2013

A phase III, open, randomized, controlled, multi-centre study to demonstrate the non-inferiority of the meningococcal serogroup C and the haemophilus influenzae type b immune response of GlaxoSmithKline (GSK) Biologicals’ conjugate Hib-MenC vaccine co-administered with GSK Biologicals’ measles-mumps-rubella vaccine, Priorix™, versus MenC-CRM197 conjugate vaccine co-administered with GSK Biologicals’ Hib vaccine, Hiberix™, and Priorix™ in 12- to 18-month-old toddlers primed in infancy with a Hib vaccine but not with a meningococcal serogroup C vaccine; and to evaluate the long-term antibody persistence up to 5 years after the administration of the Hib-MenC vaccine. This study combined the Meningococcal C and Haemophilus influenza type b immune response in combination with the scheduled measles, mumps and rubella vaccine in children aged 12-18 months with a five year follow up period: G Reynolds, T Lafferty. 2008 -2013

ACT parent immunisation questionnaire: knowledge and beliefs of parents on immunisation and attitudes towards participation in paediatric clinical trials. This survey looked at the beliefs and attitudes surrounding immunisation conduced at the ACT Health Paediatric Clinical Trials Unit: S Gillett. 2011-2012

Long term follow up of the outcomes after the PRIVENT (prevention of recurrent urinary tract infection (UTI) in children with vesicoureteric reflux and normal renal tracts) trial: a study on the Canberra PRIVENT cohort. To determine the long term renal and health outcome for children enrolled in the PRIVENT Trial. Differences in the rate of recurrent UTIs, chronic renal damage or de novo scarring in children who were randomised to receive prophylactic antibiotic or placebo for one year after an episode of acute urinary tract infection (PRIVENT trial): G Reynolds, M Pathak, R Jyoti. 2010-2012

A cross-sectional retrospective data study to determine the clinical severity of respiratory syncytial virus (RSV) respiratory infection and epidemiological risk factors in Australian children less than 2 years of age presenting to hospital in one epidemic season. This is a retrospective data study, involving the collection of information from the medical records of children admitted to Canberra Hospital with proven RSV. The records studied will be of those children admitted from 1 April 2009 to 30 September 2009. The medical record of each participant will be examined by an experienced health professional in order to collect information about the seriousness of, and risk factors for, the RSV infection. Using a questionnaire or severity tool, they will calculate a severity score (the Brisbane RSV severity score) and from this the RSV infection will be classified as mild, moderate, or severe. This simple scoring system will facilitate clinical assessment and management of infants and young children with RSV infection and will be able to be used to monitor treatment results or preventative strategies for RSV disease: G Reynolds. 2009-2011

PRESENTATIONS

Paediatric abdominal pain: a call for a Bayesian approach to decision making, C Beardsley, A Dillon, M Chiu, R Shaw, D Croaker, 4th Congress of the European Academy of Paediatric Societies, Istanbul, Turkey 2012. (Initial background data for this was presented in three talks by C Beardsley, A Dillon, M Chiu at the ACT meeting of the RACS in 2011)

Paediatric abdominal pain: a call for a Bayesian approach to decision making, C Beardsley, A Dillon, M Chiu, R Shaw, D Croaker, (Poster), 4th Congress of the European Academy of Paediatric Societies, Istanbul, Turkey 2012.

Paediatric abdominal pain: a call for a Bayesian approach to decision making, C Beardsley, A Dillon, M Chiu, R Shaw, D Croaker, Canberra Health Annual Research Meeting, Canberra, Australia 2012
Effect of CFTR gene mutations on bowel habit, M Mokhtar, D Croaker, Association of Paediatric Surgeons (BAPS) Paediatric Surgeons Association (EUPSA) joint meeting, Rome, Italy 2012.

Effect of CFTR gene mutations on bowel habit, M Mokhtar, D Croaker, Canberra Health Annual Research Meeting, Canberra, Australia 2012

Heterogeneity in the diagnosis of coeliac disease in paediatric patients, D Croaker, J Swann, L Hallam, P Jenkins, 4th Congress of the European Academy of Paediatric Societies, Istanbul, Turkey 2012.

The role of support groups for children, young people and their families with chronic health conditions, D Croaker, E Gribbin, Healthcare Australasia Conference ‘The Journey’, Sydney, Australia 2012

What to do if you don’t succeed: diagnostic testing, pharmacological and surgical interventions for treatment resistant constipation, D Croaker, E Gribbin, invited lecture, 21st National Conference on Incontinence: Canberra, Australia 2012

Bowel group for kids - a parent support group, D Croaker, invited lecture, Current Understanding of Genetics and Management of Hirschsprung’s Disease Meeting, Sydney Children’s Hospital, Sydney, Australia 2012

Heterogeneity in the diagnosis of coeliac disease in paediatric patients, D Croaker, L Hallam, P Jenkins, Canberra Health Annual Research Meeting, Canberra, Australia 2012

A very rare case of large bilateral abdominal wall eventrations, AM Qozat, F Zidan, D Croaker, Canberra Health Annual Research Meeting, Canberra, Australia 2012
**BRIEF SUMMARY**

The Physiotherapy Department of Canberra Hospital provides acute clinical physiotherapy services to both inpatients and outpatients. With approximately 40 FTE staff, the Physiotherapy Department does not have funding for research staff per se, yet has been involved in formal clinically-focused research projects and significant publications in collaboration with other areas across the Health Directorate in 2011-2012. The Physiotherapy Department is currently supporting one PhD student and one Masters student to undertake research projects in-house. There are also two Australian National University (ANU) medical students completing research projects in conjunction with Intensive Care Unit (ICU) Physiotherapy staff. The Physiotherapy Department has research affiliations with Australian National University, University of Canberra, University of Queensland and University of South Australia.

**STAFF**

- Mrs Bernie Bisset, Cardiorespiratory Clinical Educator
- Ms Margot Green, Senior ICU Physiotherapist
- Mrs Corinne Coulter, Senior Orthopaedic Physiotherapist
- Ms Jo Morris, Extended Scope Physiotherapist (Orthopaedics)
- Mrs Lisa Gilmore, Director of Physiotherapy (Acute Support)

**STUDENTS**

- Mrs Bernie Bissett, PhD, University of Queensland, Supervisors: A Leditschke, J Paratz, R Boots
- Mrs Corinne Coulter, MPhil (Research), Australian National University, Supervisors: J Scarvell, P Smith

**COLLABORATIVE ASSOCIATES**

- Dr Karen Grimmer-Somers, International Centre for Allied Health Evidence, University of South Australia
- Ms Sarah Latham, ICU Canberra Hospital, Medical Student, Australian National University
- Mr Nathan Williams, ICU Canberra Hospital, Medical Student Australian National University
- Dr Anne Leditschke, Staff Specialist, ICU Canberra Hospital, Australian National University
- A/Prof Imogen Mitchell, Director, ICU Canberra Hospital, Australian National University
- Dr Sean Chan, Staff Specialist, ICU Canberra Hospital
- Dr Marta Kot, Staff Specialist, ICU Canberra Hospital
- Dr Jennifer Paratz, Chair and Research Fellow, Department of Intensive Care Medicine, Royal Brisbane & Womens Hospital Brisbane; University of Queensland
- Dr Robert Boots, Staff Specialist, Department of Intensive Care, Royal Brisbane & Womens Hospital Brisbane; University of Queensland
- A/Prof Jennie Scarvell, Head of Physiotherapy School, School of Physiotherapy, University of Canberra
- Prof Paul Smith, Orthopaedic Specialist, Director of Trauma and Orthopaedic Research Unit, Australian National University

**RESEARCH PROJECTS**

- **Inspiratory muscle training in ventilated patients.** Randomised trials investigating the effects of inspiratory muscle training on ICU patients recovering from mechanical ventilation: B Bissett, M Green, A Leditschke, J Paratz, R Boots. 2010-2015
- **What are the barriers to early mobilisation in ICU?** An observational study. Observational study of current practice of early mobilisation in ICU, with focus on barriers to early mobilisation (completed and published 2012): A Leditschke, M Green, J Irvine, B Bissett, I Mitchell, 2009-2011
- **Does functional status on ICU admission predict functional status on hospital discharge?** Observational study (ACIF) assessing functional status of all ICU patients in six month period: M Green, S Latham, I Mitchell, B Bissett. 2011-2012