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2002 Highlights

CANCER

Cervical Cancer Vaccine
A vaccine designed to protect women against cervical cancer has proved 100% effective in a recent trial. The trial, conducted by Merck, tested the vaccine invented by Professor Ian Frazer and the late Dr Jian Zhou from the University of Queensland Centre for Immunology and Cancer Research based at the Princess Alexandra Hospital. The vaccine is based on a virus-like particle made by Dr Zhou when he was working as a research fellow with Dr Frazer in 1990. This vaccine is now in Phase III clinical trials with an international pharmaceutical company. The development of an effective vaccine against Human Papilloma Virus (HPV) offers exciting prospects worldwide.

Cancer Collaborative Group
In early 2002, a successful process began that has resulted in the establishment of the Princess Alexandra Hospital Cancer Collaborative Group. The Cancer Collaborative Group was established to bring together the basic and clinical investigators involved in cancer research on the Princess Alexandra Hospital Campus. The aims of the Cancer Collaborative Group are to encourage internal and external collaborations to maximise the research effort and to enhance the quality of care provided to people with cancer. The mission of the Cancer Collaborative Group is to foster and enhance cancer research; to foster research training of clinical and basic scientists; and to undertake the translation of research findings to the benefit of people with cancer.

Queensland Partnership with Onyvax Pty Ltd
A research partnership between the Princess Alexandra Hospital, Queensland University of Technology, and Onyvax Pty Ltd (UK Biotechnology Company) was signed. The two-year, $800,000 research deal with Onyvax is to collaborate on a major study of urological tumours. Onyvax has funded this project which aims to produce a range of prostate, kidney, and testicular cancer cell lines. These will be used to develop whole cell vaccines for cancer therapy. This could lead to the development of vaccine therapies to treat prostate, kidney, and testicular cancers.

IMMUNITY AND RHEUMATOLOGY

Researchers have found a molecular pathway that could be manipulated to turn off an immune response.

Dendritic Cells (DCs) play an important role in immune responses by processing and presenting antigen to naive T cells. Research at the University of Queensland Centre for Immunology and Cancer Research based at the Princess Alexandra Hospital has shown that the ability of dendritic cells to induce T cell activation or tolerance can be controlled by manipulation of NFκB/RelB function in dendritic cells. Thus, dendritic cells, generated in the presence of an inhibitor of NFκB, and pulsed with antigen are tolerogenic, and are not only able to prevent priming, but also to suppress a previously primed immune response. This suppression occurs through active induction of regulatory CD4+ T cells that are able to transfer tolerance from one animal to the next. Studies in mice have indicated that a single dose of dendritic cells can induce tolerance for at least 3 months.

This finding has application in the treatment of rheumatoid arthritis and other diseases of the immune system where tolerance is broken, including autoimmune disease (eg. diabetes mellitus, multiple sclerosis), allergy, transplantation and graft rejection.

SPINAL

Research into spinal cord regeneration surgery for paraplegics has commenced. Glial cells, harvested from the nose of a volunteer patient with paraplegia, have been cultured in a laboratory and implanted into the same patient’s spinal cord in a surgical procedure in June 2002. This phase one clinical trial, a collaborative arrangement between clinicians at the Princess Alexandra Hospital and scientists at Griffith University, aims to establish that this procedure causes no harm, as well assess any potential benefits to the patients.

CENTRE OF CLINICAL RESEARCH EXCELLENCE
In October 2002, researchers based at the Princess Alexandra Hospital were awarded one of nine National Health and Medical Research Council’s (NHMRC’s) Centres of Clinical Research Excellence. Princess Alexandra Hospital was the only Queensland group to receive this recognition. The Centre on Cardiovascular Disease and Metabolic Disorders, to be led by Professor
Thomas Marwick, will receive total funding of $2 million over five years. A multidisciplinary team brings together six successful clinical research groups in cardiovascular and metabolic disorders in collaboration with specialists in telemedicine, to address the interface between these diseases and to train a group of clinical researchers skilled in multi-disciplinary research. The planned research includes mechanistic studies as well as interventional studies that will be translated to clinical practice.

QUEENSLAND CLINICAL TRIALS CENTRE
The Queensland Clinical Trials Centre has been established to improve health by designing and managing clinical trials that provide high-quality evidence about the value of health interventions. The Centre coordinates and manages large controlled trials of major public health importance, providing expert advice to smaller clinical trials conducted by independent investigators, and conducting research into methodological and statistical aspects of clinical trials.

AUSTRALASIAN LEUKEMIA AND LYMPHOMA GROUP
Australia’s first Leukemia and Lymphoma Tissue Bank based at the Princess Alexandra Hospital was launched in October 2002. The Tissue Bank will store tissues from patients treated on clinical protocols developed by the Australasian Leukemia and Lymphoma Group.

PRINCESS ALEXANDRA HOSPITAL CENTRES FOR HEALTH RESEARCH
This year the Queensland Government and Queensland Health recognised the research strengths and capabilities of the Princess Alexandra Hospital Centres for Health Research through the investment and official opening of the new research facility.

GRANT SUCCESS
In November 2001 investigators based at Princess Alexandra Hospital received from the National Health and Medical Research Council (NHMRC), in excess of $2.6 million over three years for eight new projects. Four of these, totalling $500,000 per annum over three years were awarded to the University of Queensland Centre for Immunology and Cancer Research based at the Princess Alexandra Hospital.

A successful round of NHMRC grants were also announced in November 2002. Nine health and medical research projects representing fifteen percent of the grants being awarded to Queensland researchers have been awarded to investigators based at the Princess Alexandra Hospital.
The Centres for Health Research, established in 1999 to support and foster research efforts and the further the development of research on the Princess Alexandra Hospital campus, provides tangible evidence of the prominent role of medical research at the Princess Alexandra Hospital. The increase in research activity, as judged by the number of research publications, the invitations of the key scientists to national and international meetings and the numbers of successful NHMRC grants, is a measure of the success of this research precinct.

The achievements highlighted throughout this report are in line with the mission of the Princess Alexandra Hospital Health Service District that is “To Deliver a World-Class Health Care, Teaching, and Research Service”, the “Smart State” vision and the “Smart State 2020: Health Directions Statement” particularly, with the following strategic directions:

- Building a strong research culture within Queensland and Queensland Health by strategically investing in research opportunities, encouraging innovation and developing strong collaborative partnerships between the public sector, private sector, universities and research organisations
- Building a research environment to attract and retain high quality researchers
- Supporting an environment which pursues the commercialisation of significant medical research discoveries and appropriately rewards researchers.

The research community at the Princess Alexandra Hospital is highly committed and dedicated to medical research, health service provision and the health and well being of our community.

Research is about cooperation, support and goodwill. We are grateful for the role and contribution of the broader hospital community, our patients, the many volunteers, our collaborators and supporters, particularly the Princess Alexandra Hospital Foundation under the Chair of Mr Leo Williams AO for their fundraising efforts of over $500,000 in 2002.

I thank and congratulate our researchers for their efforts, hard work, and contribution locally, nationally and internationally to health and medical research.

Dr Richard Ashby
District Manager
Princess Alexandra Hospital Health Service District
2002 has been a year of consolidating research activities to the new state-of-the-art contemporary research laboratories. The completion and overall smooth transition to the new building has been a great milestone for all the staff involved. This new research facility brings the critical mass of researchers together and provides opportunities for sharing of high technology equipment.

The Queensland Premier, the Honorable Peter Beattie; Health Minister, The Honorable Wendy Edmond; and Innovation and Information Economy Minister, The Honorable Paul Lucas, officially opened the new research facility in July 2002. The Minister for Health the Honorable Wendy Edmond, in August 2002, officially commissioned the Lions Floor in recognition of the contribution the Lions Medical Research Foundation made to research at Princess Alexandra Hospital.

The opening of the new research laboratories was celebrated with a two-day scientific symposium held in conjunction with the 42nd Annual Princess Alexandra Hospital Week. The Symposium showcased the research being undertaken in the new laboratories. The success of the Symposium reflected the commitment and scientific excellence of our research teams, and the strong support offered by our sponsors and hospital administrative staff. The contribution of research collaborators from other institutions in Brisbane and beyond also greatly enhanced the impact of the Symposium.

During the year the laboratories for Herron Pharmaceuticals were completed and opened by the Queensland Premier, the Honorable Peter Beattie. The Herron Pharmaceuticals joint venture is an important realisation of the drive to bring together basic research with commercial development. At the same time the new offices for Professor Michael Roberts’ Therapeutics Research Group were commissioned. These were fitted out through the generous support from Herron and from the Lions Medical Research Foundation.

Research capabilities have been acknowledged in the past year through a number of significant achievements and appointments, including:

- The establishment of a collaboration between Professor David Gotley, Associate Professor Mark Smithers and the Epidemiology group at the Queensland Institute of Medical Research that has resulted in a successful application to the National Institutes for Health in the 2002 granting round worth SUS270, 000 per annum for five years. The project will be a national epidemiological study of Barrett’s oesopagus and oesophageal cancer, the largest and most ambitious of its type so far proposed.

- The appointment of Dr Sarah Winch, Nursing Director Research in 2001, has enhanced the nursing research profile. In 2002, a successful collaboration with Dr Anne Pisarski, Dr Cindy Gallois, Dr Bernadette Watson, Professor Phillip Bohle and Ms Ann Mitchell resulted in an ARC Linkage Grant for 2003 of $120,000 over 3 years. The project will look at “Enhancing the Health, Wellbeing, Job Satisfaction and Retention of Hospital-Based Registered and Enrolled Nurses Working Shiftwork”. Nursing at Princess Alexandra Hospital has also been invited to participate in the Nurse Practitioner Project both as a host site and as part of the evaluation team.

- The John Trivett Foundation’s generous support of the University of Queensland and the Princess Alexandra Hospital to establish a senior research position at Princess Alexandra Hospital. Dr Tammy Ellis was awarded the John Trivett Senior Research Fellowship to investigate the causes of primary brain tumours. Dr Ellis is working with researchers...
at Princess Alexandra Hospital, the Institute for Molecular Biosciences, and Canada’s Arthur and Sonia Labbatt Brain Tumour Research Center.

- The appointment of Professor Len Gray in May 2002 to the University of Queensland Chair in Geriatric Medicine will provide a focus for research in ageing and aged care at the Princess Alexandra Hospital. Professor Gray has a strong record in administration, and research and development in aged care, and has been involved in several high level policy reviews at National and State levels.

- The isolation of a Brown Snake venom-genetically engineered proteins to address the need to reduce blood loss that was carried out through a collaboration between Dr Paul Masci (Princess Alexandra Hospital) and Professor Martin Lavin (Royal Brisbane Hospital) University of Queensland and Professor John de Jersey, University of Queensland. UniQuest, University of Queensland’s technology commercialisation company has worked with the researchers to form a company, HaemPatch Pty Ltd and have secured $500,000 from Uniseed Pty Ltd to fund preclinical development over the next two years.

I would like, on behalf of the Centres for Health Research and the Princess Alexandra Hospital Health Service District, to thank our researchers for their outstanding contribution during 2002 and to thank all who contributed to, and supported the research efforts. In particular, I wish to acknowledge the efforts of the Princess Alexandra Hospital Research Committee, the Princess Alexandra Hospital Foundation under the Chair of Mr Leo Williams AO, the Human Research Ethics Committee under the Chair of Dr Derek Dickey, the Animal Ethics Committee under the Chair of Professor Michael Roberts and the support of the District Manager, Dr Mark Waters, and the Princess Alexandra Hospital Executive team.

It gives me great pleasure to present this fifth Annual Research Review, which is a summary, of what has been achieved in 2002.

Professor Donald Cameron AO
Chair, Centres for Health Research
Princess Alexandra Hospital
The Princess Alexandra Hospital Foundation has continued its generous support for the scientists and researchers working on the Hospital campus. Following approaches from various research groups, this year the Foundation took a new direction to research funding by funding groups of researchers working in specific areas rather than allocating grants to individual researchers. This approach ensured that grants were fully utilised across the wide spectrum of research being conducted at the hospital.

A total of $240,000 was allocated under this new formula. Groups funded included those working on Cervical, Bowel, Oesophageal and Skin Cancers, and Liver disease, particularly Sclerosis. A combined group researching obesity by exploring its links between the development of Heart Disease and Diabetes also received support. This newly formed group has already attracted national and international attention within the scientific community.

Other groups assisted include those working in Pharmacology, particularly in the area of drug absorption through the skin, and others working on research into high blood pressure.

The Foundation has had a long-standing interest in the search for improved methods of rehabilitation for brain and spinal cord injured patients. For many years funds were available through the Motor Accident Insurance Commission (MAIC) for channelling into this area. The association with the MAIC concluded during the year but residual funds totalling $65,000 have been allocated to two rehabilitation researchers.

By far the largest research grant made in the history of the Foundation was made in 2002. A total of $200,000 over two years has been granted to a team working on cell transplantation into injured spinal cords. This work gained international scientific recognition and world media coverage when it was announced in July.

In simple terms it involved the injection of millions of cells grown from samples taken from a patient's nose into their severed spinal cord. Four paraplegic patients will receive the transplants and any changes they experience either in movement or bodily functions will be compared with four paraplegics with similar injuries who have not received the transplant. The research group has taken great steps to ensure that this work is not hailed as a cure for paralysis. They point out that the initial purpose of this Phase I trial is to ensure such transplants do not cause harm. Any dramatic improvement in the quality of life of transplanted patients would be a wonderful bonus.

Members of the Foundation Board appointed by the Governor in Council are drawn from the business and medical communities. They are as follows:

**CHAIR**
Leo G. Williams AO, RFD, BA, LLB Consultant, Freehills – Solicitors.

**Deputy Chair**
Anthony N. Ford ASIA Retired

**MEMBERS**
Kenneth Donald MBBS, PhD, FRCPA, MRAC Path., FRACMA, FRACS. Professor and Head Graduate School of Medicine, University of Queensland.

Rod Henshaw Managing Director, Rod Henshaw and Associates.
Lyn Hamill  B.Pharm (Vic), MBA, Chair Princess Alexandra District Health Council, Princess Alexandra Hospital.

G. Roderick McLeod AO, RFD, ED, MBBS, FRCS (Ed.), FRCS (Eng.), FRACS. Chair, Division of Surgery, Princess Alexandra Hospital.

Mark Waters  MBBS, Dip.RACOG, FRACGP, FRACMA, FACHSE, MHA. District Manager, Princess Alexandra Hospital Health Service District.

David Theile AO, MBBS (Hon.) (Qld), MS (Qld), FRACS, FRCS (Eng.), FRCS (Ed.) (Hon.), FANZCA (Hon.), FAMS (Hon.). Senior Visiting Surgeon, Princess Alexandra Hospital.

David Usasz  ACA, AHKSA, ASCPA, B Com. (UQ). Partner, PricewaterhouseCoopers - Chartered Accountants.

Donald P. Cameron  AO, MD, FRACP. Chair, Research Division, Princess Alexandra Hospital.

Michael T Wille  BA (Hons). Bowling Green University, Yale University. Company Director.

Simon Lockyer  BSc (Griffith University) Communication Director, McCann Erickson Advertising.

Richard Bowly  Dip. Advertising (Melb) Associate Fellow Australian Marketing Institute, Chair Cradeview Pty Ltd, Toowoomba, Director, Queensland Hotels Association, Director The Southern Hotel Toowoomba

SECRETARY
Anne Maree Buttner  B Appld Sc (OT), Grad. Dip. Management. Director Corporate Services, Princess Alexandra Hospital Health Service District.

HONORARY SOLICITOR
Michael Back  BA (Hons.) LLB (Hons.). Partner, Freehills – Solicitors

FOUNDATION STAFF
Gary Evans  Chief Executive Officer, BA (UQ)

Lloyd Hancock  Executive Director Administration, BSc (UQ)

Jennie Bickerton  Marketing Manager

Barbara Blake  Administration Assistant

Research Committee

CHAIR
Kenneth Donald MBBS, PhD, FRCPA, MRAC Path., FRACMA, FRACS. Professor and Head of the Graduate School of Medicine, University of Queensland.

MEMBERS
Donald P. Cameron  AO, MD, FRACP. Chair, Research Division, Princess Alexandra Hospital.

Ian Frazer  MD, FRCP (Ed.), FRCPA. Professor of Medicine and Director, Centre for Immunology and Cancer Research, Princess Alexandra Hospital.

David C. Gotley  MD, FRACS. Professor of Surgery, University of Queensland.

Thomas Marwick  MBBS, PhD, FACC, FESC, FRACP. Professor of Medicine, University of Queensland.

Nicholas Bellamy  MB ChB, MD, Msc, FRCP(Glas.), FRCP(C), FACP, FAFRM, FRAC. Director, Center of National Research on Disability and Rehabilitation Medicine (CONROD) Department of Medicine, University of Queensland.
Human Research Ethics Committee Report

**Function**

The Research Ethics Committee is constituted and functions according to the National Health and Medical Research Council’s guidelines as published in the National Statement on Ethical Conduct in Research Involving Humans.

Before research commencement it is a requirement to review all projects involving humans, and if there are significant modifications, review again at least annually. Any serious adverse events from investigational drugs are also reviewed. Review by the Committee is to ensure that volunteers are not subject to undue risk, and that subjects are fully aware of any risks and benefits they may incur. The Committee also ensures that studies are compliant with relevant legislation.

**Activity**

**REVIEWED**

194 new submissions, 50 of these commercially sponsored.

Approximately 17 modifications to protocols each month.

Approximately 150 serious adverse drug related events reviewed per month.

There are more than 400 studies active at present that generate more than 400 annual reviews.

**Compliance**

The Committee’s composition and activities are reviewed annually by the Australian Health Ethics Committee, a Committee of the NHMRC, and if found to be non-compliant, further activity cannot proceed until the problem is resolved.

**CHAIR**

Dr D Dickey MBBS, FRACP

**MEMBERS**

Dr D Looke MBBS, FRACP, FRCPA, M Med Sci., Medical Graduate with Research Experience

J North Graduate with Research Experience

Dr R Zubeshaw MBBS Medical Graduate General Practitioner

Ms JA Coombes B Pharm, MSc Pharmacy Graduate

Dr S Winch PhD, RN, BA. Hons.1 (Queensland) Nursing Graduate

Mr D Cole B.Eng (Elect) Layman

Mrs H Brennan B.Ed Laywoman

Rev I Mundy BA, BTh Minister of Religion

Mr P Murphy LLB, Dip Legal Practice Lawyer

Dr K Ferguson MBBS Secretary

Apart from the Chairman and Secretary, all members act in an honorary capacity.
Division of Medicine
Brain Injury Rehabilitation Unit

The Brain Injury Rehabilitation Unit offers assessment and therapy on an inpatient and outpatient basis for acquired brain injury in the broad working age group. Services are provided by a multidisciplinary team comprising nursing; medical; occupational therapy; physiotherapy; speech pathology; neuropsychology; and social work. Diffuse brain injury, as exemplified by trauma, is characterised by a complex set of cognitive and behavioural changes that are best managed by a team approach as well as different environments as recovery proceeds. Returning to usual lifestyle and achieving realistic patient centred goals are a priority. The support of family and friends as well as careful planning to achieve goals including community living, driving, work and study are important objectives.

Clinical research in the areas of spasticity management, therapeutic activities and functional cognitive retraining.

Staff
Dr Ron Hazelton, Medical Director
Medical Registrar and members of Nursing, Allied Health, Neuropsychology and Social Work departments.

Current Research Activities

An assessment of efficacy of Gabapentin (Neurontin) as an adjunct for the management of spasticity in patients with severe acquired brain injury. (K Pugh, M Schubert, R Hazelton).

Objective and behavioural assessment of the emergence from post-traumatic amnesia. (E Doig, A Weimers, N Williams, J Flemming).

Assessment of decision-specific cognitive capacity in adult brain injury patients. (D Fogarty, H Tinson, J Oram, D Shum).

The role of botulinum toxin a in the management of calf spasticity and hypertonus. (M Tadros, R Hazelton, D Hayes, S Brauer).


Publications


ABSTRACTS PUBLISHED

An assessment of efficacy of Gabapentin (Neurontin) as an adjunct for the management of spasticity in patients with severe acquired brain injury. AFRM ASM 2002

Public Service Relevant to Research

Dr R Hazelton.
Member, Committee for Commonwealth Government Trial of Funding Model for Private Hospital Rehabilitation.
Clinical Pharmacology Department

Clinical activities focus on promoting quality use of medicines. This includes drug safety awareness and adverse reaction reporting, drug utilisation evaluation, evaluation of high cost drugs, therapeutic drug monitoring, hospital, state and national drug committee involvement, the provision of clinical advice on therapeutic issues, education, the development of prescribing guidelines and the provision of drug concentration results of newer immunosuppressant agents.

Teaching activities involve mainly medical undergraduate clinical pharmacology as well as postgraduate teaching of medical registrars preparing for Part 1 Fellowship examinations.

Research is focussed on pharmacokinetic and pharmacodynamic studies of newer immunosuppressant drugs and quality use of medicines including drug utilisation evaluation and pharmacovigilance. The overarching hypothesis of the research is that patient care can be optimised when doses are individualised early in therapy by rational use of data in the context of individualised dosage prediction. In collaboration with the University of Queensland Pharmacy Department and the Department of Surgery, the Department is currently studying mycophenolate mofetil (MPA), tacrolimus and sirolimus. Researchers are prospectively determining the population pharmacokinetics of MPA, in renal transplant patients and linking this to a pharmacodynamic model to determine dose-concentration-effect relationships. An accurate HPLC-atmospheric pressure chemical ionisation tandem mass spectrometry method for quantification of free MPA has been developed. Population pharmacokinetic studies in the three main patient groups with tacrolimus have been conducted and researchers are prospectively testing pharmacokinetic algorithms in a dosage prediction program. Data analysis is proposed to accurately define concentration effect relationships and develop concentration targets appropriate to each transplant group. Researchers are studying the early use of sirolimus in the Australian population and are also characterising the potential interaction between sirolimus and tacrolimus. A specific HPLC-tandem mass spectrometry assay for whole blood sirolimus quantification that is used for the sirolimus clinical trials throughout Australia and South East Asia has been developed. This provides a unique concentration-time database that enables us to study the use of this agent in a rigorous way.

Quality use of medicine research is currently focussed on drug utilisation evaluation studies and evaluation of dosage adjustment in renal impairment.

Staff
Dr Peter Pillans, Director
Paul Kubler, Registrar
Paul Taylor, Senior Scientist
RESEARCH ASSISTANT
Bronwyn Atcheson

Current Research Activities

OTHER RESEARCH
Investigation of the effect of atorvostatin on the pharmacokinetics of cyclosporin and tacrolimus in liver transplant patients
Investigation of the effect of oral iron administration on MPA absorption in renal transplant patients
Investigation of the pharmacokinetics and pharmacodynamics of MPA in an Australian population
Testing of pharmacokinetic algorithms for tacrolimus
Investigation of the pharmacokinetics of sirolimus and interaction between tacrolimus and sirolimus
Evaluation of the concordance of clopidogrel use with prescribing guidelines
Evaluation of dosage adjustment in renal failure
Evaluation of COX-2 inhibitor use

Financial Support
$15,000 National Prescribing Service
$135,000 NHMRC Pharmacokinetic and pharmacodynamic studies of the newer immunosuppressant agents (S Tett, P Taylor, S Lynch, S Duffull, P Pillans, R Morris)

Publications
JOURNAL
Mackenzie FD, Pillans PI, Radford JM, Claes MT, Fleming AM (2002). Improving concordance between use of proton pump...
inhibitors and prescribing guidelines. J Pharm Prac Res 32: 31-34


ABSTRACTS PUBLISHED


ARTICLES ACCEPTED FOR PUBLICATION


Taylor PJ, Morris RG. (in press). Tacrolimus measurement by microparticle enzyme immunoassay II (Editorial) Ther Drug Monit.

Awards


Public Service Relevant to Research

Peter Pillans
Australian Drug Evaluation Committee.
Dermatology

**Staff**
Dr John Auld, Director of Dermatology

**VISITING MEDICAL OFFICERS**
Dr Caroline Mercer
Dr Greg Siller
Dr Robert Sinclair
Dr Zoran Gasper
Dr Michael Freeman
Dr Portia Miller
Dr Brian De’Ambrosio

**RESEARCH ASSISTANT**
Dr Jason Wu

**Current Research Activities**

**CLINICAL TRIALS**
Melanoma and Dysplastic Naevus Diagnosis by means of electrical impedance measurements of normal and dysplastic skin using the TS2000M.

Multi-centre Phase III, double blind study of photodynamic therapy (PDT) with Metvix 160mg/g cream in comparison to PDT with placebo in patients with primary nodular basal cell carcinoma.

An open-labelled study to elevate the safety and long-term clinical efficacy of Imiquimod cream applied once daily, seven days per week for six weeks in the treatment of superficial basal cell carcinoma.

An open label study to evaluate the efficacy and safety of Imiquimod 5% Cream applied topically as an adjuvant to curettage for the treatment of non-aggressive nodular basal cell carcinoma.

**OTHER RESEARCH**
Alternative Splicing of GLI 1 and its role in tumourigenesis. (J Rothnagel)

**Funding**
All research and clinical trials have been supported by donations from the Queensland Skin and Cancer Foundation. $30,000

**Publications**

**Post Graduate Students**
Dr. Karyn Lun
Dr. Michael Sharkey

**Public Service relevant to Research:**

Dr. John Auld
Chief Censor Australasian College of Dermatology

Dr. Caroline Mercer
Queensland Censor Australasian College of Dermatology

Dr. Robert Sinclair
Chairman Queensland Faculty Australasian College of Dermatology

Dr. Greg Siller
Secretary Queensland Faculty Australasian College of Dermatology

Member, Medical Advisory Panel of Peplin Biotech.
Diabetes and Endocrinology Department

The Diabetes and Endocrinology Department provides a tertiary level in- and out-patient clinical service in diabetes and endocrinology. The service includes consultancy to other Departments and services within the hospital and an outreach service every two months to Mt Isa Base Hospital.

The clinical service is supported by a laboratory providing a genetic screening service for Australasia for inherited disorders of endocrine tumours and of calcium regulation abnormalities.

The Department also houses an independently-funded research program in three main areas - Type 2 diabetes and obesity, Genetics of Type 2 diabetes and Paget’s disease of bone and growth hormone deficiency.

There are three groups as follows:

Prins Group: The main aim of the work is to investigate the relationship between obesity and insulin resistance. Specific projects involve investigation of human adipose cell acquisition and loss, insulin action and insulin signal transduction and specific roles of transcription factors and hormones in adipose tissue metabolism and insulin resistance.

Shaw Group: The main activity of the group involves identification of genetic mutations linked to Type 2 diabetes and to Paget’s disease of bone. A number of large kindreds with either disease have been identified and carefully phenotyped, and linkage analysis and genome-wide scanning is underway.

Whitehead Group: Dr Whitehead joined the Department in November 2002, and is establishing a laboratory investigating insulin signal transduction using in vitro cell systems. The group is concentrating on the study of IRS-1 and IMPDH – two insulin-responsive molecules important in insulin signal transduction.

Staff

Professor John Prins MBBS, PhD, FRACP, Director
Associate Professor Joanne Shaw MBBS, PhD, FRACP, Staff Endocrinologist
Dr Margaret Williamson MBBS, FRACP, Senior Visiting Endocrinologist
Associate Professor Ross Cuneo MBBS, PhD, FRACP, Endocrinologist (UQ)
Dr Alpha Yap MBBS, PhD, FRACP, Part-time Endocrinologist
Dr Trisha O’Moore-Sullivan MBBS, FRACP, Part-time Endocrinologist
Dr Anthony Russell MBBS, FRACP, Part-time Endocrinologist
Dr Jonathan Whitehead PhD, Senior Scientist
Dr Alan Ma PhD, Senior Scientist
Dr John Cardinal PhD, Scientist
Sr Jane Lidgard RN, Clinical Trial Co-ordinator (CTC)
Sr Vanessa Campbell RN, CTC
Sr Karen Mains RN, CTC
Sr Christine Watts RN, CTC
Sr Marie Bottolfsen RN, CTC
Sr Janine Kesting RN, Clinical and Genetics Study Coordinator
Dr Paul Lovelock PhD, Postdoctoral Scientist
Dr Francis Busfield PhD, Postdoctoral Scientist
Dr Wenda Shurety PhD, Postdoctoral Scientist
Dr Larissa Haupt, Research Scientist
Ms Louise Hutley, BSc, Research Scientist
Ms Janet Rae Berkholz, Research Administrative Assistant

Current Research Activities

Osteoporosis
Strontium Ranelate (3 Study Groups)
Normalisation of Calcium & Vitamin D and the effects of S12911 on the incidence of new vertebral fractures and peripheral fractures in postmenopausal women. Fosamax (70 mg weekly) in patients with osteoporosis.

Diabetes
Mitiglinide.
A month multi centre, multi national randomised double blind study of the effect of Mitiglinide in combination with Metformin compared to Metformin or Mitiglinide given as monotherapy given for the treatment of Type II diabetes followed by a 5-month open label treatment with Mitiglinide/Metformin combination.

GLAG (Pioglitazone) and GLAL (Pioglitazone).
Long-term efficacy and safety of Pioglitazone vs Gliclazide in patients with Type II diabetes.

Pregabalin (Painful Neuropathy)
A placebo controlled trial of Pregabalin and Amitriptyline for the treatment of painful diabetic peripheral neuropathy.
**DIRECT Retinopathy**
3 year clinical program on the effects of candesartan cilexetil on diabetic retinopathy.

**ASPART (Analogue Insuli)**
Open label noncomparative multicentre extension trial to assess long term safety vs efficacy of insulin aspart in subjects with Type II diabetes.

**Zenerastat (Neuropathy)**
A long term double blind placebo controlled parallel group study of Zenerastat (C1-1014) in diabetic patient at risk of foot ulcer.

**CL2-1526 (Phase IIb)**
Dose ranging study of S15261-3 administered orally bid at the doses of 12.5mg, 25mg, 50mg, 100mg and 200mg for 12 weeks in Type II diabetic patients. Multicentre randomised double blind phase II study versus placebo and metformin.

**Endocrinology**

**Xenical**
Roche Sample Repository Research Project to evaluate orlistat as a treatment for obesity.

**Prevention Breast Cancer**


**OTHER RESEARCH**

Regulation of human adipose cell apoptosis.

Regulation of human adipose cell differentiation.

Regulation of insulin sensitivity in human adipose tissues – relationship to obesity and pregnancy Study of PPARγ activation and its endogenous ligands in human adipose tissue.

Study of TNF and its receptors and cloning of a novel mitochondrial TNF-binding protein Study of the relationship between non-alcoholic hepatic steatosis, obesity and cirrhosis (in collaboration with Dr Graeme Macdonald, Department of Medicine, University of Queensland).

Investigation of specific dietary interventions in diabetes and non-alcoholic steatohepatitis.

Identification of susceptibility genes for type 2 diabetes in pedigrees from populations in our geographic region with a high prevalence of type 2 diabetes, including a large pedigree of admixed Pacific Islander/European descent, and indigenous Australian pedigrees.

Identification of susceptibility genes for Paget’s disease of bone in pedigrees with multiple affected members.

Implementation and evaluation of diabetes education and intervention programs in indigenous Australian communities.

Clinical and genetic analysis of vascular disease in indigenous Australian pedigrees: in collaboration with Professor T Marwick, University of Queensland.

**Patents**

US patent application number 60/392,130 entitled "Differentiation modulating agents and uses therefor" filed on June 27, 2002.

**Financial Support**

$10,000 Princess Alexandra Hospital Foundation. Fibroblast growth factor-1 (aFGF) in human adipogenesis, (Hutley)

$20,000 Eli Lilly. The influence of Pioglitazone (Actos) on apoptosis in human adipose cells, (Prins)

$35,800 Diabetes Australia Research Trust. In vitro and in vivo effects of arachidonic acid on glucose homeostasis, (Imbeault)

$38,000 Diabetes Australia Research Trust. The effect of the thiazolidinediones on apoptosis in human adipocytes, (Prins)

$50,000 Heart Foundation. Fibroblast growth factor-1 (aFGF) - a key signalling molecule in human adipogenesis, (Hutley)

$157,000 Wellcome Trust. Tumour necrosis factor and its receptors - regulation of human adipose tissue mass, distribution and insulin sensitivity. (Prins)

$12,000 ICON, Direct study. (Prins)

$9,400 Eli Lilly, GLAL. (Prins)

$12,300 Eli Lilly, GLAT. (Prins)

$13,000 Novo, Rasaglitazar. (Prins)

$59,000 Servier, Strontium. (Prins)

$9,000, Eli Lilly, CORE. (Williamson)

$145,000 NHMRC, Identification of a novel NIDDM susceptibility gene localised to human chromosome 12q, Associate Professor J Shaw

$14,020 Arthritis Foundation of Australia. Identification of a novel gene causing Paget’s disease of the bone, Associate Professor J Shaw

US $10,000 The Paget Foundation, Identification of a novel susceptibility gene for Paget’s disease of bone localised to human chromosome 18q23, Associate Professor J Shaw
$9,970 Princess Alexandra Hospital Foundation, Clinical and Genetic analysis of vascular disease in subjects with type 2 diabetes, Associate Professor J Shaw

$10,000 Princess Alexandra Hospital Foundation. Identification of a novel susceptibility gene for Paget’s disease of bone, Associate Professor J Shaw

$53,114 Pfizer CVL Grant, Implementation and evaluation of a cardiovascular disease prevention strategy in an urban indigenous community with a high prevalence of type 2 diabetes, Associate Professor J Shaw

$11,000 Eli lily Endocrinology Research Grant, Implementation and evaluation of a diabetes education program in an urban indigenous community with a high prevalence of type 2 diabetes, Associate Professor J Shaw

$67,000 (2001-2002 financial year) CRC for the discovery of genes for common human diseases, Identification of a novel diabetes susceptibility gene localised to 12q in a large pedigree of mixed European/Pacific islander descent, Associate Professor J Shaw

$37,000 Diabetes Australia Research trust, Localisation of Type 2 diabetes susceptibility genes in an indigenous Australian pedigree, Dr Frances Busfield, Assoc Professor J Shaw

$10,000 Princess Alexandra Hospital Foundation, Localisation of Type 2 diabetes susceptibility genes in a large indigenous Australian pedigree, Dr Frances Busfield, Assoc Professor J Shaw

$10,000 Princess Alexandra Hospital Foundation, Isolation of a novel diabetes susceptibility gene localised to chromosome 12q in a large pedigree of Pacific Islander descent, Dr Paul Lovelock, Associate Professor J Shaw

$5,000, The Princess Alexandra Foundation, Fine mapping of a type 2 diabetes locus on human chromosome 3, Shelley Walker, Associate Professor J Shaw

$5,000 Princess Alexandra Hospital Foundation, Mutation analysis of candidate genes for type 2 diabetes susceptibility in a large indigenous Australian pedigree, Cheng Xia Guo, Associate Professor J Shaw

$5,000 Princess Alexandra Foundation, The localization of a gene for Paget’s disease of the Bone, David Good, Associate Professor J Shaw

$1,000 Private Practice Travel grant, Dr Frances Busfield, Associate Professor J Shaw

$1,000 Private Practice Travel Grant, Dr Paul Lovelock, Associate Professor J Shaw

**Publications**


**ARTICLES ACCEPTED FOR PUBLICATION**


Tan, Y., et al., Autosomal dominant hypocalcaemia - a novel activating mutation (E604K) in the cysteine-rich domain of the


Lectures and Presentations
Over 70 lectures and presentations to local, national and international for a presented by members of the Department

Post Graduate Students
Louise Hutley, PhD, completed
Tony Russell, PhD, in progress
Trisha O’Moore-Sullivan, PhD, in progress
Janet Warner, PhD, in progress
Su Mien Yeoh, PhD, in progress
Tara Carton, PhD, in progress
David Chambers, MBBS/PhD, in progress
Alison Sweet, Honours, completed
Sylvie St-Pierre, PhD, in progress

Awards
David Good, recipient of Young Investigator Award Australian and New Zealand Bone and Mineral Society Annual Meeting October 6-9 2002. “Single Base-Pair Deletion of a Gene Encoding sequestosome1 (SQSTM1/p62) in Paget’s Disease of Bone”.

Public Service Relevant to Research

Professor J Prins
NHMRC Grant Review Panel
Member, Scientific organising Committee, Australian Diabetes Society
Track Head, Scientific Organising Committee, International Congress of Obesity, 2006
Member, Research Committee, Centres for Health Research, Princess Alexandra Hospital
Member, Research Committee, Southern Clinical School, University of Queensland

Associate Professor J Shaw
Member, Specialist Advisory Committee in Endocrinology for the Royal Australasian College of Physicians
Regional Examiner, Committee for Examinations, Royal Australasian College of Physicians
Ethics, Personal and Professional Development Committee, University of Queensland Graduate Medical Course
Chairperson, 100 Families Against Diabetes Advisory Board
Gastroenterology and Hepatology Department

Diseases of the gastrointestinal tract are common and include viral hepatitis, iron overload, cirrhosis and liver cancer. The Department of Gastroenterology and Hepatology has a major focus on liver disease including liver transplantation. The Unit is committed to promoting and integrating both clinical and basic scientific research and as such encourage research projects during the specialist training of gastroenterologists. The Department, which falls within the Division of Medicine, is led by the Director and comprises a staff of approximately thirty consultants, medical officers, nursing, scientific and administrative staff members.

Major research interest is in the pathophysiology of iron metabolism in hepatic disease, specifically iron overload in end-stage liver disease and have been awarded National Health and Medical Research Council funding to explore mechanisms of iron handling by the cirrhotic liver. Viral hepatitis forms a substantial portion of the Department’s patient population especially, up to one percent of the Australian population is infected with the hepatitis C virus, and the Department is active in conducting clinical trails in this area. Liver Transplantation is today a major factor in the management of end-stage liver disease and forms a significant part both the day to day patient management and research. The Department actively collaborates with National and International scientists and clinicians in a variety of research projects.

**Staff**

**CLINICAL STAFF**
Darrell Crawford MD, FRACP, Associate Professor of Medicine, Director of Gastroenterology and Hepatology
Elizabeth Powell MBBS, FRACP, PhD, Clinical Senior Lecturer, Department of Surgery, Director of Clinical Training & Gastroenterologist
Paul Kerlin MD, FRACP, Clinical Professor of Medicine, Senior Consultant Gastroenterologist
Derek Dickey MBBS, FRACP, Senior Consultant Gastroenterologist
Charles Steadman MD, FRACP, Clinical Associate Professor of Medicine, Senior Consultant Gastroenterologist
Neville Sandford MBBS, FRACP, Consultant Gastroenterologist
Andrew Pascoe MBBS, FRACP, Consultant Gastroenterologist
Dominic Raychaudhri MBBS MRCP, Fellow
Mariko Howlett MBBS, FRACP, Senior Registrar
Matthew Remedios MBBS, FRACP, Registrar

**RESEARCH STAFF**
Linda Fletcher BSc (Hons), PhD, Scientist
Kim Bridle BSc (Hons), PhD, Post Doctoral Research Officer
Katherine Stuart MBBS, FRACP, NHMRC PhD Student
Therese Murphy MSc, Scientific Research Officer
Margaret Walters B.App.Sc, Research Assistant
Claudia Shorthouse RN, Liver Disease Co-ordinator
Julie Roggeveen RN, Clinical Research Co-ordinator
Di Jones RN, Research Assistant

**Current Research Activities**

**RESEARCH**

*Iron metabolism in the cirrhotic liver: studies on iron absorption and hepatic iron kinetics.*

The healthy human adult absorbs 1-2mg iron daily through the small intestine in a process that is tightly regulated because excess free iron is extremely toxic. In certain conditions, most notably in the inherited iron overload disease hereditary haemochromatosis, there is altered iron metabolism leading to an increase in intestinal iron absorption and heavy iron deposition in organs particularly in the liver. Liver cirrhosis in many instances is characterised by excess iron deposition in the absence of any genetic mutations in the haemochromatosis gene. Excess hepatic iron has implications in pre-transplant management for subjects on liver transplant waiting lists and post transplant outcome. Duodenal iron transporters are molecules found in enterocytes (cells of the small intestine) and these molecules regulate the amount of iron absorbed from the diet. Dr Katherine Stuart is progressing well in her NHMRC funded PhD and has proceeded to quantitate the mRNA expression of
recently described duodenal iron transport genes (DMT1, IREG1 hepahestin and Dcytb) in human duodenal biopsy specimens in patients with liver disease and related these to disease aetiology. Her results are consistent with DMT1 (IRE) and Ireg 1 playing primary roles in the adaptive response to iron deficiency and her findings have been accepted for publication in prestigious specialist journals. Animal models of liver cirrhosis that mimic cholestatic and hepatocellular liver disease are now well established in our laboratories and studies have been conducted to compare the regulation of intestinal iron transporters in these animals.

A major study in collaboration with Dr Peter Hickman, Department of Chemical Pathology, relating to population screening for C282Y associated haemochromatosis, is nearing completion with a draft paper being prepared which evaluated outcomes of a hospital based screening strategy. Of 18,799 subjects screened, 887 with elevated total iron binding capacity were genotyped for the C282Y mutation, detecting 35 homozygote haemochromatosis patients. Follow up of these patients provided evidence in support of population screening for this disease.

An ongoing collaborative research project with Professor Lawrie Powell (Queensland Institute of Medical Research), and Associate Professor Mark Bassett (Canberra Hospital) is investigating phenotypic expression of HFE-associated haemochromatosis in homozygous relatives of affected subjects.

Following Dr Crawford’s sabbatical leave at the Liver Transplantation Unit at the University Hospital, Birmingham, United Kingdom, investigations into implications for patient survival, graft function and pathogenesis in haemochromatosis patients undergoing liver transplantation has resulted in the preparation of a draft paper.

Iron transport kinetics and therefore hepatic iron metabolism in the diseased liver is likely to be quite different from normal liver due to collagenisation. In order to completely define the mechanisms of iron loading in hepatocellular liver disease, we have initiated an analysis of iron transport kinetics in normal and diseased animal models with Professor Michael Roberts (University of Queensland, Department of Medicine) and his hepatic therapeutics group. Preliminary experiments have shown promising results.

**Hepatic fibrosis, stellate cell biology and hepatocellular carcinoma.**

Relating to our collaborations with Professor Y Muto (Gifu University, Japan) Dr Kim Bridle has commenced investigations into the mechanism of action of polyprenoic acid in the inhibition of tumor growth in an animal model of primary hepatocellular carcinoma. In particular she is investigating the cellular mechanisms by which hepatic stellate cells (HSC) may play a role in relation to cytokine production and matrix deposition/remodelling after administration of the acyclic retinoid, polyprenoic acid. In addition, we propose to examine the interrelation between HSC and hepatocytes/tumour cells following PPA administration.

**CLINICAL TRIALS**

NV15942  Roche 116/99 Phase III, Randomised, Multicentre, Efficacy and Safety Study Examining the Effects of the Duration of Treatment and the Daily Dose of Ribavirin in Patients with Chronic Hepatitis C Virus Infection Treated with the Combination of Peginterferon alfa-2a and Ribavirin.

WV16143 Roche. A protocol for re-treatment with the combination of Peginterferon alfa-2a and Ribavirin for patients with chronic hepatitis C in original study NV15942 who relapsed virologically after completing 24 weeks of treatment.

NV 15908 An extension protocol to evaluate the long-term effects of treatment with peginterferon alfa-2a (PEG-IFN)- or interferon (IFN)- based therapies for patients with chronic hepatitis C.

NR16071  Roche 22/01 A Randomized, Open – Label, Multicentre, Phase III Study Evaluating the Efficacy and Safety of Peginterferon alfa-2a (Ro25-8310) in Combination with Ribavirin (Ro 20-9963) Given for 24 Weeks Versus 48 Weeks Versus No Treatment in Patients with Chronic Hepatitis C and Persistently Normal AL T Levels.

BV16209 Roche 132/00 Protocol B Pegasys Mono or Pegasys + RIBAVIRIN SAS. Multicentre Open Label Expanded Access Program of Peginterferon alfa-2a (Ro25-8310) Monotherapy and Combination Therapy with Ribavirin (Ro 20-9963) in Patients with Chronic Hepatitis C.

AM365 Amrad 188/00 A Phase Ia, Multicentre, Randomised, Double-Blind, Placebo-Controlled Study to Assess the Safety and Efficacy of Oral AM365 for the Treatment of Chronic Hepatitis B Virus Infection.
GS-98-437 Gilead 8/99 A Double-Blind, Randomised, Placebo-Controlled Study of Adefovir Dipivoxil for the Treatment of Patients with HBeAg(+) Chronic Hepatitis B Virus Infection.

GS-00-480 Gilead An open-label, continued access study of Adefovir Dipivoxil for patients with chronic HBV infection who have completed a Gilead-Sponsored study of Adefovir Dipivoxil.

GS-00-481 Gilead A phase 3b, long-term, observational study of the durability of seroconversion in patients with chronic hepatitis virus infection who have seroconverted while participating in a previous Gilead-Sponsored study of Adefovir Dipivoxil.


S2413009 Solvay 2/02 A Double-Blind, Placebo-Controlled, Randomized, Multinational Study to Investigate the Safety and Efficacy of 2 mg TID of Cilansetron Over 26 Weeks In Diarrhoea-Predominant Irritable Bowel Syndrome Subjects.

V42P2 Chiron 7/02 A Phase II, Double-Blind, Multicentre, Randomized, Placebo-Controlled Study of the Safety and Efficacy of HBV/M59 (Chiron Corporation) Alone or in Combination with Lamivudine in Adults with Chronic Hepatitis B Infection.

PO2370 Schering Plough 32/02 PEG-Intron™ Plus REBETOL® For the Treatment of Subjects With Chronic Hepatitis C Who Failed to Respond to Previous Combination Therapy (Any α Interferon Treatment In Combination With Ribavirin) P02370

PO2569 Schering Plough 30/02 PEG-Intron™ as Maintenance Therapy vs. an Untreated Control Group in Adult Subjects With Compensated Cirrhosis (METAVIR F4), Secondary to Chronic Hepatitis C, Who Have Failed to Respond to Therapy With Any α Interferon Plus Ribavirin

PO2570 Schering Plough 33/02 PEG-Intron™ Maintenance Therapy vs. an Untreated Control Group for Prevention of Progression of Fibrosis in Adult Subjects With Chronic Hepatitis C With Hepatic Fibrosis (METAVIR Fibrosis Score of F2 or F3), Who Failed Therapy With PEG-Intron Plus REBETOL® (in Protocol No. P02370)

NV-02B-007 Index 12/03 A randomized, Double Blind Trial of Ldt (Telbivudine) vs Lamivudine in Adults with Compensated Chronic Hepatitis B.

WV16827 Roche 3/03 A Multicentre Screening Protocol to assess Patients with Chronic Hepatitis C Virus Infection (CHC) for Eligibility to Participate in Upcoming Studies that will compare the Efficacy and Safety of the combination of Pegylated Interferon alfa-2a (Pegasys®) and Levovirin (Ro 28-2768) with the Combination of Pegylated Interferon alfa-2a (Pegasys®) and Ribavirin.

OTHER RESEARCH
The influence of host genetic factors on disease progression in chronic hepatitis C

Investigations into the relationship between steatosis and fibrosis in chronic liver disease.

Financial Support

GRANTS


$33,019 Queensland Liver Transplant Service: “Iron metabolism in end-stage liver disease”. Chief Investigators: Associate Professor Crawford, Dr LM Fletcher, Dr G Cleghorn, Dr G. Anderson

$10,000 Princess Alexandra Hospital Foundation: “Iron overload in end-stage liver disease: mechanisms, pathological significance and role of iron removal”. Chief Investigators: Drs. D. Crawford, L.Fletcher.

$47,000 Royal Children’s Hospital “Hepatic fibrogenesis in paediatric liver disease”. Chief Investigators: Drs. G. Ramm, D.Crawford, P. Lewington, R. Sheppard.

$75,000 Queensland Health “Does a computerised care plan assist in the management of chronic HCV”. Chief Investigator: Associate Professor. D. Crawford.

Publications

Clouston AD, Powell EE: Interaction of non-alcoholic fatty liver disease with other liver diseases. Best Pract Res Clin Gastroenterol 2002, 16:767-781


Clouston AD, McCullen M, Fawcett J, Crawford DHG: Centrilobular hepatitis with elevated autoantibody titers after liver transplantation - autoimmune hepatitis or a form of rejection. Hepatology 2002, 36:658A


Gane EJ, McCaughan G, Strasser S, Crawford DHG, Harley H, Jeffery G, Schoeder B, Jackson K, Bowden S, Angus P: Combination lamivudine plus low dose intramuscular hepatitis B immunoglobulin prevents recurrent hepatitis B and may eradicate residual graft infection. Hepatology 2002, 36:221A


BOOK CHAPTERS

ARTICLES ACCEPTED FOR PUBLICATION

Post Graduate Students
Katherine Stuart, PhD, in progress

Awards
Dr Elizabeth Powell has a NHMRC Practitioner Fellowship for 2001-2005
Dr Katherine Stuart has a NHMRC Postgraduate Medical Research Scholarship 2001-2003 in the area of iron metabolism in end-stage liver disease.
Dr Mariko Howlett was awarded the young investigator prize by the Gastroenterological Society of Queensland 2002 for her investigations into the implications of increased hepatic iron deposition in patients with chronic hepatitis C.
Public Service Relevant to Research

Member of Editorial Board, Journal of Hepatology/Journal of the European Association for Study of the Liver (Associate Professor Crawford)

Assessors NHMRC Grants
As/Professor Crawford
Dr Powell
Dr Fletcher

Manuscripts reviewed for the following journals:
Journal of Gastroenterology and Hepatology
Gastroenterology
Digestive Diseases and Sciences
Hepatology
Australian & New Zealand Journal of Medicine
Journal of Hepatology
Clinical Chemistry
Nutrition International
Medical Journal of Australia
Liver Transplantation and Surgery
GUT

Professional and Research Related Societies:
Memberships of Departmental Members:
International:
American Association for the Study of Liver Disease
International Association for Study of the Liver
American Gastroenterological Society
American College of Gastroenterology
British Society of Gastroenterology
Mayo Alumni Society
National:
Gastroenterological Society of Australia
Australian Society of Medical Research
Australian Society of Parenteral and Enteral Nutrition
Australasian College of Physicians
Australian Fulbright Association
Local:
Gastroenterological Society of Queensland
Haematology Department Clinical and Laboratory

The Department of Haematology is a leading contributor to major national and international trials being conducted in the treatment of leukaemias, myelomas and lymphomas. Presently, the Department is participating in 16 clinical trials.

The Haematology department has an active research program in both laboratory and clinical haematology. The main areas of interest include:

**Minimal Residual Disease (MRD) in Acute Myeloid Leukaemia (AML).** This project is aimed at identifying patients who are destined to relapse after achieving remission. Methods have been developed in identifying very low numbers of surviving leukaemia cells for a subset of specific AML subtypes, present when patients are thought to be in remission. Serial monitoring using the quantitative molecular techniques that have been established allows staff to identify patients with rising levels of leukaemia indicating impending relapse. Early therapeutic intervention can then be recommended. Further studies will allow staff to redefine AML treatment goals in terms of the molecular endpoints identified as necessary to achieve long term stable remission.

Other MRD applications: Similar approaches have been developed for specific lymphoma subtypes that are amenable to highly sensitive molecular monitoring. There are plans to expand the MRD program to encompass other hematologic malignancies where relapse from remission is the major cause of treatment failure.

**The AMP Leukaemia and Lymphoma National Tissue Bank:** A joint initiative of the Australasian Leukaemia and Lymphoma Group (ALLG) and the Leukaemia Foundation. This facility is housed and managed at Princess Alexandra Hospital. This is a national project, and run by a senior member of the department on behalf of the ALLG. The tissue bank archives samples of blood and bone marrow from patients with hematologic malignancies treated on ALLG clinical studies. This facility will be a unique resource for the laboratory research community enhancing our ability in Australia to contribute to the understanding of leukaemia and its biology.

**Translational Research in chronic lymphocytic leukemia (CLL).** In collaboration with the Centre for Immunology & Cancer Research (CICR) there are two major research projects underway. Firstly, investigating the mechanism of defective cell death in CLL, particularly the role of PKR pathway. Secondly, gene expression profiling of cancers. Microarray technology has been established on site in Centres for Health Research. First project is successfully underway in B-CLL.

**Staff**

Dr Ralph Cobcroft: Director, Princess Alexandra Hospital and Queensland Health Pathology Services, Associate Professor University of Queensland
Dr Devinder Gill: Director Clinical Haematology, Princess Alexandra Hospital and Associate Director Queensland Health Pathology Services
Dr Paula Marlton: Senior Staff Haematologist Princess Alexandra Hospital and Associate Director Queensland Health Pathology Services and Senior Lecturer University of Queensland
Dr Anthony Mills: Staff Haematologist Princess Alexandra Hospital, Senior Lecturer University of Queensland
Russell Saal: Chief Scientist - Haematology Queensland Health Pathology Services
Karen Grimmett: Supervising Scientist Haematology - Special Investigations Section Queensland Health Pathology Services

**VISITING MEDICAL OFFICERS**

Dr Mark Bentley
Dr Helen Wordsworth
Locum Professor: Derek Hart

**RESEARCH ASSISTANTS**

Venessa Griffiths
Lani Hardy

**SHARED STAFF WITH MEDICAL ONCOLOGY**

Ms Danica Humphries, Data Manager
Mr Steven Ivanhoe, Data Manager
Ms Janelle Barboza, Data Manager
Mrs Harbans Gill, Data Manager
Mrs Susan Godwin, Research Nurse
Tanya Graham, Research Nurse
Current Research Activities

International Study Group Trial: CHOP with or without the anti-CD20 antibody Rituximab in de novo Diffuse Large B-Cell Non-Hodgkin's Lymphoma.

EORTC: European Organization for Research and Treatment of Cancer; Chimeric anti-CD20 monoclonal antibody (Mabthera®) in remission induction and maintenance treatment of relapsed follicular non-Hodgkin’s lymphoma: Phase III randomised clinical trial (Intergroup Collaborative Study)

ALLG: Phase II, HyperCVAD regimen for previously untreated, clinically aggressive (IPI ≥2) intermediate/high grade CD20 Non-Hodgkin's Lymphoma

ALSG CLL2 Protocol: International Phase III Trial of Primary Therapy for B-Cell Chronic Lymphocytic Leukaemia

TROG/ALLG Involved Field Radiation +/- Chemotherapy in Stage 1-11 Low Grade Follicular Lymphoma

Randomized Study of Fludarabine and Cyclophosphamide With or Without Genasense (Bel-2 Antisense Oligonucleotide) in Patients with Relapsed or Refractory Chronic Lymphocytic Leukaemia

A Phase II Clinical Trial Testing AMG 412 in Combination with Rituximab in Subjects with Refractory or Recurrent Low-Grade, CD-20+ B-cell Non-Hodgkin’s Lymphoma

An open-label phase 2 study of Pegfilgrastim to support CHOP chemotherapy administered every 14 days for the treatment of subjects older than 60 years with non-Hodgkin’s lymphoma

Open-label, non-comparative study of pegylated alpha-interferon-2b (PEG-Intron) in the induction and/or maintenance of hematologic remission in patients with essential thrombocythemia (ET)

A Phase II study of efficacy and safety of Gleevec(R) (STI571) in patients with chronic myeloid leukaemia (CML) and complete or near complete cytogenetic responses to interferon-alpha therapy

A Phase II study in patients with newly-diagnosed chronic myeloid leukaemia of initial intensified Gleevec® therapy, and sequential combined therapy for non-responders (CSTI571AAU08 PROTOCOL) (CML6)

Profiling dynamics of EBV – specific Cytotoxic T cell response in Hodgkin’s Disease and its implication for immunotherapy (QIMR/ALLG).

A phase-II study of idarubicin-based combined modality therapy in primary central nervous system lymphoma: ALLG LY04; TROG 01.02

A multicentre randomised phase III study of low-dose thalidomide, prednisolone and zoledronic acid versus prednisolone and zoledronic acid for post-ASCT maintenance therapy in patients with multiple myeloma (MM6)

Immunotherapeutic treatment of EBV-associated lymphoproliferative disease in solid organ transplant patients. QIMR / Vaccine Solutions Pty Ltd

Detect function of the anti-growth kinase, PKR in Leukemia cells

Dendritic cell count (MMRI) Dendritic cell counts during stem cell and/or granulocyte cell mobilization in oncology patients and donors.

Analysis of new clinically valuable prognostic indicators in chronic lymphocytic leukaemia – correlation of genomic aberration, immunoglobulin gene mutational status and CD38 expression with clinical parameters

Comprehensive assessment of minimal residual disease in patients with good prognosis acute myeloid leukemia (AML) for the prediction of relapse and development of therapeutic algorithms

Profiling EBV dynamics in Hodgkin’s disease: collaboration with QIMR

Gene Expression profiling in B-CLL

Defining the effect of anti-CD20 antibody therapy in non-Hodgkin’s lymphoma patients on the Epstein-Barr virus-specific cytotoxic T cell response and Epstein-Barr virus DNA load (QIMR)

Funding/Grants

$ 196,222 received as support for multiple clinical trials. This amount applies to both Medical Oncology and Haematology as not distinguished in the account

$10,000 Roche Haematology/Oncology Research Trust Fund

$8,000 Princess Alexandra Hospital Research and Development
Publications


ARTICLES ACCEPTED FOR PUBLICATION


Post Transplant related Lymphoproliferative Disease. QIMR 2002

Update on CHOP ± Mabthera in Aggressive (low risk) Non-Hodgkin's Lymphoma: Australasian Leukemia Lymphoma Group Meeting. Melbourne May 2002


ALLG Proposal: Salvage chemotherapy R-ICE vs R-DHAP in relapsed Diffuse Large B-Cell Non-Hodgkin's Lymphoma (CORAL Study).

Dr Anthony Mills
Role of New Treatments in the Management of Neutropenia Haematology and Oncology Nurses Education Workshop

Molecular Diagnostics and their Application to Haematology Royal Australasian College of Physicians Lecture Series.

Dr Paula Marlton
The molecular genetics of Acute Myeloid Leukemia- Royal College of Pathology Update, Sydney April 02

Update: Minimal residual disease in CBF AML: ALLG Sydney Nov 02

Core Binding Factor Leukemia: ALLG presentation and proposal, Sydney 02

Wt-1 gene expression levels in the assessment of minimal residual disease in AML. ALLG Sydney 02

Lectures and Presentations

Dr Devinder Gill


ABSTRACTS WHICH HAVE BEEN PUBLISHED

ALLG Tissue Bank – Data Managers Conference.
Sydney 02
Australia’s First National Tissue Bank - Tissue
Bank Launch Oct 02
Non-Hodgkin’s Lymphoma – GMC course

MEDIA APPEARANCES
Immunotherapy for Hodgkin’s Disease: Focus on
QCF grant winners
ALLG National Tissue Bank Launch
Russell Saal
MRD Detection in CBF Positive AML,
Proceedings of the Haematology Society of
Australia and New Zealand 48th Annual
Scientific Meeting 2002

Dr Anthony Mills
Role of New Treatments in the Management of
Neutropenia. Haematology and Oncology Nurses
Education Workshop
Molecular Diagnostics and their Application to
Haematology Royal Australasian College of
Physicians Lecture Series.

Public Service Relevant to Research

Dr Devinder Gill
Member of Steering Committee and Principal
Investigator (on behalf of ALLG) of Intergroup
International Lymphoma Trial: Salvage
chemotherapy R-ICE vs R-DHAP in relapsed
Diffuse Large B-Cell Non-Hodgkin's Lymphoma
(CORAL Study).
Member of Steering Committee and Co-Principal
Investigator (on behalf of ALLG) International
Study Group Trial: CHOP with or without the
anti-CD20 antibody Rituximab in de novo Diffuse
Large B-Cell Non-Hodgkin's Lymphoma
Member of the Committee on behalf of NHMRC
and ACN preparing management guidelines for
transplant related post lymphoproliferative
disorders (PTLD)
Member of the Committee on behalf of NHMRC
and ACN preparing management guidelines for
Hodgkins Disease.
Member of the Laboratory Scientific Sub-
Committee of Australasian Leukemia and
Lymphoma Group (ALLG),
Chairman Cancer Collaborative Group at Princess
Alexandra Hospital
Member, Princess Alexandra Hospital Research
Committee

Member, Senior Medical Staff Association:
Pathology Representative
Reviewer: NHMRC Grant application
Scientific assessor Anti-cancer Council of
Victoria and for the Leo & Jenny Leukaemia and
Cancer Foundation
Member, Qld Haematology/Oncology Workforce
Party
Member, Reference Group Committee for Qld
Southern Zone Review of Oncology/ Haematology
Services

Dr Paula Marlton
Executive Member, Australasian Leukemia and
Lymphoma Group (ALLG)
Chairman, Laboratory Scientific Committee
ALLG
Founder and co-ordinator, ALLG tissue Bank
Member, Australian Cancer Network working
party for the preparation of NHMRC Guidelines
for the management of Lymphoma: Chairman of
the Immunodeficiency related Lymphoma
Committee
Speaker for Leukemia Foundation of Queensland.
Member, Medical Services Advisory Committee
Supporting Committee on Nucleic Acid
Amplification Testing in Haematologic
Malignancy
Member Cytogenetics and Molecular Genetics
Working Party QHPS
Member Medical Advisory Board for Mabthera
Member Medical Advisory Board for
Darbopoeitin
Examiner PhD thesis: University of Adelaide
Reviewer: NHMRC Grant application

Dr Ralph Cobcroft
Member of the Blood Product User Group of NE
Australia Red Cross Blood Service.
Chairman: Queensland Health Blood and Blood
Products Advisory Group.
Member, High Cost Drugs Sub-Committee of the
Drugs and Therapeutics Committee, Princess
Alexandra Hospital.
Member Queensland Health Pathology Service,
Haematology Discipline Working Party
Member Queensland Health Pathology Service,
Molecular Biology Discipline Working Party
Emergency Department

This Emergency Department is a designated level 6-Trauma Centre with 42,000 annual attendances and 14,000 admissions. It is an acute clinical department with responsibility for ED presentations, Observation Bay admissions, and attendance at cardiac arrests occurring within the hospital environs. The department is responsible for pre-hospital and interhospital transfers of sick and injured patients in the Southern Zone, Queensland Health, utilising fixed and rotary wing assets, and road. The Department provides Clinical Coordination and medical advice for the hospitals and health facilities within the Southern Zone.

Department research is hampered by lack of funding for trained and dedicated research assistants, and a heavy service commitment which impacts on Consultants and Registrars non-clinical time.

Main areas of research include: Trauma Registry, NICS (National Institute of Clinical Studies), Aeromedical Retrievals and Aviation Medicine, Medical Education and Assessment in the Emergency Department – Recording and analysing problem solving models currently in use.

Staff

Dr Phillip Kay, Director, MBBS, FRACGP, Dip RACGP, FACEM
Julie Finucane OAM, NPC, FRCNA
Dr Peter Thomas, Deputy Director, Principal Clinical Coordinator Southern Zone, MBBS, FRCS(Edin), FRACGP, FACRRM.
Dr Michael Sinnott, MBBS, FACEM, FRACP
Dr Colin Page, MB,ChB, FACEM
Dr Bevan Lowe, MB,ChB, Dip Obstetrics, Dip Sport Med (CAN), FNZCGP, FACEM
Dr James Collier, MBBS, FACEM

PERMANENT PART TIME
Dr Karen Richards, MBBS, FACEM
Dr Roy Muleahy
Dr Marianne Cannon, MBBS, FACEM
Dr Andrew Parkin MB,ChB, FACEM

RESEARCH ASSISTANT
David McNaughton RN, Trauma Nurse Coordinator (Part-Time)
Matthew Malt RN, Aeromedical Clinical Support Officer (Part-Time)

Current Research Activities

CLINICAL TRIALS
Determinants of Interventional Therapy in Overdose Patients. James Collier. Part of a multicentre trial based at RBH
National Demonstration Hospital Project Phase 4 – Improving Aged Care. James Collier in conjunction with Ian Scott, Internal Medicine Department
Prospective study of missed C1 C2 fractures in trauma on plain radiology. Andrew Parkin and Sean Lawrence with John Coucher, Radiology Department
Study of neurological outcome of patients undergoing early reduction of facet dislocation with or without fracture. Andrew Parkin
Family study of patient with lignocaine resistance. Michael Sinnott, Jamie Thomas and Peter Silburn

OTHER RESEARCH
Incidence and Implications of Exploding Tyre Injuries in Queensland.
Computerised follow up of abnormal pathology results. Michael Sinnott, Stuart Young and Goce Dimeski.

Financial Support
GRANTS
$36,000, Trauma – CONROD and Queensland University.
$400 (prize money), NICS.

Publications
JOURNAL

Lectures and Presentations
“Triage in Australasia – Intuition or Science?” ACEM winter symposium in Wellington New Zealand.

Presenter, Rural Emergency Medicine Workshop, Queensland Rural Medical Support Agency, 2000-2002. Dr Peter Thomas

Post Graduate Students
Dr Jo Potts (unfunded position) Preparation of Clinical Guidelines for the Acute Management of Suspected Spinal Injuries.

Awards
Dr Neville Henry AM 1999 (now retired)
RN Julie Finucane OAM 2000

Public Service Relevant to Research
Dr Phillip Kay
Private Practice Committee for the College of Emergency Medicine

Julie Finucane OAM
President of the Queensland Emergency Nurses Association
Chair of the College of Emergency Nursing Australasia Ltd
Staff Officer Grade 2 Nurse (Head of Corps Staff) Defence Personnel Executive Canberra

Dr Peter Thomas
Chairman, Training Centre, St John Ambulance (Queensland), 1995 – 1998
Member, Training Centre, St John Ambulance (Queensland), 1987 – present
Lecturer, Royal Australian College of General Practitioners GP Registrars Training Program 1992- present.
Lecturer, Queensland Ambulance Service Paramedic Program 1996- present.

Queensland Emergency Medical System Multi-Casualty and Disaster Planning Advisory Committee, 1999-ongoing.
Queensland Emergency Medical System (QEMS) Zonal/Regional Coordination Committee, 1999-ongoing.
Principal Clinical Coordinators Group, 1999, 2001-ongoing.
GP/Hospital Liaison Committee, 1998-ongoing.
Chair, “Transport of Mental Health Patients” Working Group, 2002
International Society of Aeromedical Services (ISAS) Australasian Chapter, 1997-2002

Dr Michael Sinnott
Director of Emergency Medicine Training

Dr Colin Page
Member of the Fellowship Exam Committee;
APLS (Advanced Paediatric Life Support) Instructor

Dr Bevan Lowe
Member of the Fellowship Exam Committee;
APLS (Advanced Paediatric Life Support) Instructor
AHLS (Advanced Hazmat Life Support) Instructor

Dr James Collier
Member of the Fellowship Exam Committee;
APLS (Advanced Paediatric Life Support) Instructor

PERMANENT PART TIME

Dr Karen Richards
Secretary of the Queensland Branch of the Australasian College of Emergency Medicine
Chair of the MCQ subcommittee of the Fellowship Exam
Clinical Leader of National Institute of Clinical Studies Project

Dr Marianne Cannon
Course Facilitator for Council of Rural and Remote Nurses
Infection Management Services

Infection management Services provides consultative inpatient and outpatient services in clinical infectious diseases, infection control, home IV antibiotic delivery and sexual health to the Princess Alexandra, QEII, Logan, Redlands, Ipswich and Toowoomba Hospitals.

Staff provide education at both post-graduate and undergraduate level including to MBBS, Bachelor of Science and Bachelor of Pharmacy student of the University of Queensland.

Staff
Dr Michael Whitby, Director
Dr David Looke, Consultant Infectious Diseases
Dr Wendy Munckhof, Consultant Infectious Diseases
Dr Geoffrey Playford, Consultant Infectious Diseases
Dr Tony Morton, Consultant Statistician
Mrs Gail Nielsen, Pharmacist
Dr Miranda Mortlock, Statistician
Mr Ron Webster, Research Associate

Main Areas of Research
The broad research focus of the department is on healthcare associated infection with ongoing interests in a number of associated areas including:

Development of methodology for infection control surveillance of healthcare associated infection and monitoring of antimicrobial prescribing.

Laboratory and epidemiological investigation of marker organisms including Methicillin-resistant Staphylococcus aureus, multi-resistant Acinetobacter and Candida.

Antimicrobial pharmacodynamics.

Protection of Healthcare Workers with activities in the area of Hepatitis B vaccination, needlestick injury and handwashing behaviour.

Financial Support
GRANTS


Publications
Looke D. Vancomycin-resistant enterococci. Nephrology 2002(May);7(Suppl.):S67-S68
Playford EG, Dwyer DE. Laboratory diagnosis of influenza virus infection. Pathology 2002;34:115-125.


ABSTRACTS WHICH HAVE BEEN PUBLISHED


O’Sullivan MVS, Looke DFM. The CSF examination in Syphilis: the benefit does not outweigh the risk. Australian Society for Infectious Diseases Inc. 2002 Annual Scientific Meeting. Tanunda, South Australia April 2002

Thomson RM, Looke DFM. Gastro-oesophageal reflux disease (GORD), acid suppression and Mycobacterium avium complex (MAC) pulmonary disease. Australian Society for Infectious Diseases Inc. 2002 Annual Scientific Meeting. Tanunda, South Australia April 2002

Webster AC, Playford EG, Higgins G, Chapman JR, Craig J. IL2 receptor antagonists for renal


Articles accepted for publication


LECTURES AND PRESENTATIONS

Invited Lectures


Munckhof WJ. Putting antimicrobial pharmacodynamics into practice. In Abstracts of the 8th Western Pacific Congress of Chemotherapy and Infectious Diseases, Perth, Western Australia, December 2002.


Research presentations

Chen SC, Playford EG. Molecular Musings and the Clinical Mycology Laboratory. 3rd Annual Scientific Meeting, Australian Society for Antimicrobials, Sydney, February 28- March 2, 2002.


Huysgens F, Nimmo GR, Schooneveldt J, Munckhof WJ, Giffard PM. Genotyping of methicillin-resistant Staphylococcus aureus (MRSA) by assaying for the presence of variable elements associated with mecA. In Abstracts of the Australian Society for Antimicrobials 3rd


POST GRADUATE STUDENTS

Awards
2002 - Roche Travel Award, Australian Society for Antimicrobials (Dr W Munckhof)

Public Service Relevant to Research
Dr David Looke
Pathology – Editorial Board

Dr Michael Whitby
International Journal of Infectious Diseases – Editor for South East Asia/Australasia.

Australian Journal of Hospital Medicine – Editorial Board.

Australian Journal of General Practice – Editorial Board.
Internal Medicine Department

The Internal Medicine Department provides consultant inpatient and outpatient services in general internal medicine within the Division of Medicine. Department staff also practice within areas of specialty interest including non-invasive cardiology, geriatric medicine, rheumatology, respiratory medicine, lipidology and acute stroke medicine.

Research interests, many of which are being advanced under the auspices of the newly established Clinical Services Evaluation Unit, include:

**Evidence-based practice:** Conducting and publishing systematic reviews, particularly in the area of cardiac and aged care; conducting literature reviews and producing clinical practice guidelines in cardiac care; researching methods for improving quality and uptake of clinical guidelines within practice.

**Quality improvement:** Developing and implementing multifaceted quality improvement programs in cardiac care (acute coronary syndromes and congestive heart failure), aged care, acute stroke care, use of clinical investigations, advanced care planning, outpatient services, clinical risk management, and hospital bed utilisation.

**Health services research:** Analysing use and effects of clinical indicators and feedback systems in health care; characterising and assessing influence of clinical leaders using ethnographic methods; analysing socioeconomic gradients in use of invasive cardiac procedures.

**Clinical education:** Researching methods for improving clinical reasoning skills in medical students and junior medical staff.

*Brisbane Cardiac Consortium Clinical Support Systems Program (CSSP) 2000-2002.* Multisite collaboration involving Princess Alexandra Hospital, Royal Brisbane Hospital, Queen Elizabeth II Hospital, and Brisbane North and Brisbane Southside Central Divisions of General Practice.

**Staff**

Dr Ian Scott FRACP, MHA, MEd
Director of Internal Medicine; Director of Clinical Services Evaluation Unit

**VISITING MEDICAL OFFICERS**

Dr Graham Hall
Dr Graeme Maguire
Dr Peter Landsberg
Dr Frank Lepre

**RESEARCH ASSISTANTS**

Annabel Hickey (MMSc [Clin Epi], BAppSci OT)
Neil Stewart
Melodie Downey
Karen Watson
Daniela Sanders Cert. Clin.Pharm, BPharm(Hons)

**Current Research Activities**


Systematic review of quality improvement interventions in the care of patients with acute coronary syndromes. 2002-2003. Authors: Dr Ian Scott and Dr Victor Chen.

Systematic review of studies comparing invasive with conservative strategies following acute coronary syndrome. Cochrane Library review. 2002-2004. Authors: Michel Hoenig, Dr Jennifer Doust, Dr Ian Scott, A/Professor Con Aroney.

Systematic review of strategies for optimising appropriateness of use of clinical investigations. 2002-2004. Authors: Ms Sandi Porozzi, Professor...
Paul Glasziou, Professor Chris Del Mar, A/Professor Charles Mitchell, Dr Ian Scott.

Systematic review of validity and impact of administrative data in optimising quality of hospital care. 2002-2003. Author: Dr Ian Scott

Hospital Performance Indicators Program (2000-2002) Collaboration with Queensland Health Medical Quality program.


Financial Support

Health Information Centre, West Moreton Coronary Outcomes Program, Dr Ian Scott. (Ms Catherine Harper, Ms Aleesa Clough, Dr Michael Coory)

$420,000, Royal Australasian College of Physicians, Brisbane Cardiac Consortium Clinical Support Systems Program, Dr Ian Scott, A/Professor Charles Denaro, (Dr Cameron Bennett, Dr Alison Mudge, Dr Judy Flores, Ms Annabel Hickey)

$30,000, Queensland Health Quality Improvement and Enhancement Program, Hospital Performance Indicators program—Cardiac Care, Mr Danny Youlden, (Dr Michael Coory)

Dr Ian Scott)

$60,000, Queensland Health Quality Improvement and Enhancement Program, Cardiac Rehabilitation Program. Survey of outpatient cardiac rehabilitation utilisation, Ms Kylie Lindsay, (Dr Ian Scott, Ms Hazel Harden, Ms SueAnn Case)

$80,000, Queensland Health Quality Improvement and Enhancement Program, Cardiac Care Optimisation Program, Dr Ian Scott, Ms Irene Darwin, (Ms Hazel Harden, Mr Andy Duke, Dr Michael Ward)

$80,000, National Institute of Clinical Studies, Clinical Leaders Survey, Dr Stella Stevens, Dr Ian Scott, (Ms Liisa Vonhellens, Mr Greg Iselin)

$50,000, Commonwealth Department of Health and Aged Care, Older Patient Care Initiative, Dr Ian Scott, (Dr Jim Collier, Ms Kim Johns, Ms Gai-Maree Shepherd)

Publications


ARTICLES ACCEPTED FOR PUBLICATION


Scott IA, Heath K, Harper C, Clough A. An Australian comparison of specialist care of acute


Lectures and Presentations *Invited

Dr Ian Scott
*Brisbane Cardiac Consortium CSSP progress report. Presentation to National Quality and Safety Council, Queensland Health, Brisbane. 27 March.

*Teaching EBM to medical students. Presentations at National Teach the Teacher EBM Workshop, Wesley Hospital, Brisbane. April 3-6.

*Lectures: Use of clinical indicators; Quality improvement strategies: Cardiac Collaborative State Workshop, Queensland Health Collaborative for Healthcare Improvement, Brisbane. May 3.

Audit of consultant reply letters to referring doctors. Presentation RACP Annual Scientific Meeting, Brisbane. May 7.


Pre-operative assessment. Lecture for RACP College Lecture Series, Wesley Hospital, Brisbane. May 29.


Progress report CSSP. Presentation to panel of Australian and New Zealand health officials. Royal Brisbane Hospital, Brisbane. June 11.


*Use of clinical indicators in optimising quality of care of patients hospitalised with heart failure. Presentation at the National Institute of Clinical Studies Heart Failure Workshop, Sydney. Aug 1.


*The role of health service research in improving clinical care. Presentation to Health Minister's Forum, Princess Alexandra Hospital, Brisbane. August 13.

*Strategies for improving outpatient cardiac rehabilitation. Presentation to Annual Conference of Cardiac Rehabilitation, Brisbane. August 23.

*Evidence based medicine for audiologists. Presentation at National Audiology Conference, Princess Alexandra Hospital, Brisbane. September 14.


Optimising quality of cardiac care: Results of a 2 year quality improvement program. Presentation at Australian College of Health Service Executives Annual Conference, Noosa. November 1.


*Achieving better care for cardiac patients. Presentation at Queensland Health Annual Scientific Meeting, Brisbane. December 4.

Annabel Hickey
*Hospital and Community care collaboration. Presentation to the Hunter Area Health Service. May 28,

The effects of quality improvement interventions in optimising quality of cardiac care (Brisbane Cardiac Consortium). Presentation at the Australasian Association for Quality in Health Care, Gold Coast. June 6.

Achieving Better Care CSSP Tool Presentation to panel of Australian and New Zealand health officials. Royal Brisbane Hospital, Brisbane. Jun 11.


Neil Stewart
Continuous practice improvement and the data manager. Presentation at the Australian Health and Research Data Managers Scientific Meeting. Brisbane, Aug 23.

Daniela Sanders
*‘Living with Heart Failure’, presentation to members of Pharmaceutical Society Australia, Brisbane February 5

*‘Explaining the Evidence to patients’, post-graduate pharmacist teaching, University of Queensland. February 28

*The Missing Link: Bringing community pharmacists into the hospital discharge liaison process. Presentation at National Medicines Symposium, Canberra. March 20-22

The Management of ACS and CHF-How well do you do? Brisbane South Division of General Practice-Continuing Education for General Practitioners, workshop facilitator. Brisbane, April 17

The Missing Link: Bringing community pharmacists into the hospital discharge liaison process. -Poster presentation, Australasian Association for Quality in Healthcare. Gold Coast, June 6 - 7.


Completing the loop-Advances in hospital discharge liaison with the help of community pharmacists’. Poster presentation at Society of Hospital Pharmacists Australia State Conference, Brisbane. November 1-3.

Awards
Best Research paper for Health Services Research, Queensland Health Annual Scientific Meeting, Brisbane. Dec 4 2002. Awarded to Dr Ian Scott on behalf of the Brisbane Cardiac Consortium Clinical Leadership Group.


Public Service Relevant to Research
Dr Ian Scott
Editor, in Internal Medicine for Internal Medicine Journal
Reviewer, Medical Journal of Australia
Commentator, Evidence- Based Medicine journal
Member, Medical Quality Program Board, Queensland Health.
Program Sponsor, Collaborative for Healthcare Improvement, Queensland Health.
Member, Heart Failure Advisory Group, National Institute of Clinical Studies.
Member, National Electronic Decision Support Taskforce.
Chair, RACP Better Practice Toolkit Writing Group.
Medical Oncology

Staff
Associate Professor DB Thomson, Director
Associate Professor Euan Walpole, Senior Staff Specialist
Dr Helen Mar Fan, Medical Oncologist
Dr Natasha Woodward, Locum Medical Oncologist
Ms Danica Humphries, Data Manager
Mr Steven Ivanhoe, Data Manager
Ms Janelle Barboza, Data Manager
Mrs Susan Godwin, Research Nurse

Current Research Activities

CLINICAL TRIALS

Breast
Phase III BIG 1-98 (140/97 Dr E Walpole)
Postmenopausal women with operable disease receptor positive. (double-blinded)
Phase III ANZ BCTG (144/00 Dr Walpole)
Intermittent Capecitabine vs Continuous Capecitabine vs standard CMF adv. Disease.
EORTC Phase III randomised (63/01 Dr Walpole) First line hormonal treatment for metastatic breast cancer with exemestane or tamoxifen in postmenopausal patients.
BCIRG Phase III 005 (Dr Walpole). Adjuvant therapy in node positive, HER2 negative, Doxorubicin with Cyclophosphamide vs Doxorubicin and Cyclophosphamide followed by Docetaxel.
BCIRG Phase III 006 (Dr Walpole) Adjuvant therapy in node positive and high risk node negative patients, HER2 positive.
TIBER (48/02 Dr Walpole) An open-label, non-comparative, two-arm, phase II trial of ZD1839 (IRESSA®) in patients with hormone insensitive (ER and/or PgR negative) or hormone resistant (ER and/or PgR positive) metastatic or inoperable locally advanced breast cancer.

Colon
TROG Study (Single arm non-random) Study of concurrent radiation and chemotherapy for organ conserving treatment of early anal canal cancer.
EORTC Phase III (1/01 Dr. E. Walpole) Pre and post-op chemotherapy with Oxaliplatin 5-FU/LV vs. Surgery alone in resectable Liver mets from colorectal origin.

Upper G.I.

Phase II Gastric Taxane Study (170/00 Dr Walpole) Previously treated, advanced gastric carcinoma.
Phase I-II PAH/MATER QRI Study Dose escalation of Paclitaxel with 5FU + concurrent radiation in advanced oesophageal cancer (Paclitaxel day 1, 5-FU civ days1-4 3 wk interval then radiation 35 Gy)
Phase I-II PAH/MATER QRI Study Protracted intravenous infusion of 5FU + concurrent radiation for oesophageal cancer 5-Fu civ for duration of radiation (3wks – palliative) (6 wks curative)
Phase II PAH/MATER QRI Study Randomized preoperative chemotherapy vs preoperative chemoradiation for resectable ca of the oesophagus and gastro-oesophageal junction.
Phase III randomized intergroup international trial assessing the clinical activity of STI-571 at two dose levels in patients with unresectable or metastatic gastrointestinal stromal tumours (GIST) expressing the KIT receptor tyrosine kinase (CD117) (60/01 Dr Walpole)

Pancreatic
Phase II Aust. Pancreatic Cancer Study Group (172/00 Drs Walpole/Harvey) Gemcitabine integrated with concomitant 5-FU & 3D conformal radiotherapy in the treatment of localised pancreatic cancer.
Phase III Gemcitabine study 125/01(Dr Walpole) Previously untreated locally advanced non-resectable pancreatic adenocarcinoma.

Melanoma
DTIC with Taxotere (142/00 Dr DB Thomson)
Metastatic Melanoma
Phase III randomized in advanced met. Melanoma (142/00 Dr Thomson)
DTIC vs DTIC + G3139 Bel-2 Antisense Oligonucleotide.

Phase II Vinflunine study (180/2000 Dr Thomson)

IV Vinflunine in metastatic melanoma chemotherapy naive

Lung
Phase 1 trial to evaluate ZD1839 (IRESSA) and concurrent chemo-radiation in patients with locally advanced non-small cell lung cancer.

Head & Neck
Tirapazamine head and Neck - 100/02. Phase III randomised trial of concomitant radiation, cisplatin, and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer.

Bladder
TROG chemo/RT bladder Phase III - 56/02. A Randomised Trial of Radical Chemo/radiotherapy vs Radiotherapy alone in the Definitive Management of Localised Muscle Invasive TCC of the Urinary Bladder

Skin
Merkel Study - 101/02. A Phase I Study of Synchronous Weekly Carboplatin and Radiation in Merkel Cell Carcinoma of the Skin

OTHER RESEARCH
Cancer Registry Project – Results of cancer treatment at Princess Alexandra Hospital using electronic data (ongoing project)

Funding
Clinical Trials
$ 196,222 received as support for multiple clinical trials. This amount applies to both Medical Oncology and Haematology as not distinguished in the account.

Publications


Lectures and Presentations
Associate Professor E Walpole
Management of Liver Metastases – Grand Rounds Princess Alexandra Hospital

Peri-operative chemotherapy for liver metastases of colorectal cancer - AGITG Annual Meeting

Postgraduate Students
Joel Dulhunty – PhD Project – An Integrated model of quality of life from the perspective of people with cancer

Public Service Relevant to Research
Associate Professor E Walpole
Deputy Chairman, QCF Medical and Scientific Committee

Reviewer, Anti cancer Council of Victoria for competitive research grants

Chairman, Medical Oncology Group of Australia

Member, Trial Monitoring Committee, AGITG Gastric Cancer Study

Member, AGITG Colorectal Committee

Associate Professor D Thomson
Specialty Editor, Medical Oncology – Internal Medicine Journal

Member, Australian Germ Tumour Group – Trial Management Committee
Radiation Oncology Unit

The Radiation Oncology Unit commenced activity at Princess Alexandra Hospital in January 2002. Previously, all research activity relating to radiation oncology for Princess Alexandra Hospital patients had been performed at the QRI Mater Centre. During 2002 the Unit treated 840 patients with cancer, and of these 66 (7.8 %) consented to be part of clinical trials. The Unit comprises two very modern linear accelerators and a state of the art computerised planning system, enabling images from the hospitals radiology department to be easily incorporated into treatment planning. The whole system allows collaborative research with other centres in Australia and overseas to be performed by electronically being able to store information.

The Unit actively pursues research at all levels and all staff are encouraged to participate in trial activity. The Unit continued its collaboration with the Medical Oncology Unit, the Respiratory Unit and various Surgical units. Trials have centred around gastrointestinal cancers (oesophagus, rectum and pancreas), lung cancer and melanoma. Others studies have been in secondary cancer involving bone, lymphomas and cancer of the head and neck.

**Staff**

Associate Professor Bryan Burmeister  
Dr Jennifer Harvey  
Dr Brigid Hickey  
Dr Margot Lehman  
Ms Liz Burmeister (Research Nurse)  
Mr Dan Jackson (Data Manager)

**Current Research Activities**

**INTERGROUP RESEARCH ACTIVITIES**

TROG 96.05 A prospective randomised trial of single fraction versus fractionated radiotherapy for neuropathic pain due to bone metastases  
TROG 99.02 A prospective single arm non-randomised study of concurrent radiation and chemotherapy for the organ conserving treatment of early anal canal cancer.  
TROG 99.03 A randomised trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for Stage I – II low grade follicular lymphoma.  
TROG 99.04 A prospective non-randomised study of chemotherapy and radiotherapy for osteosarcoma  
TROG 01.04 A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of rectum  
TROG 02.01 Randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma  
TROG 02.02 A phase III study of cisplatin, tirapazamine and radiation vs cisplatin and radiation in locally advanced head and neck cancer

The Australian Pancreatic Cancer Study Group - Protocol B9E-AY-S168 Phase II study of gemcitabine integrated with concomitant 5FU and 3-D conformal radiotherapy for the treatment of localised pancreatic cancer.

A phase I study to evaluate ZD 1839 (Iressa) and concurrent chemoradiation in patients with locally advanced non-small cell lung cancer. (Critical Study)  
A phase I study of synchronous weekly carboplatin and radiation in Merkel Cell Carcinoma of the skin – a collaborative study between Brisbane, Melbourne and Newcastle departments.

**PRINCESS ALEXANDRA HOSPITAL STUDIES**

A study of protracted intravenous infusion of 5-fluorouracil and concurrent radiation for oesophageal cancer  
A phase I study of paclitaxel, 5-fluorouracil and palliative radiation therapy for advanced oesophageal cancer.  
A phase I study of gemcitabine in conjunction with radiation therapy in the management of non-resectable non-small cell lung cancer.  
A randomised phase II study of preoperative chemotherapy versus preoperative chemoradiation for resectable carcinoma of the oesophagus and gastro-oesophageal junction.
**Financial Support**

The Radiation oncology unit received $5700 in support of clinical trial. In addition Mr Dan Jackson was funded under the Queensland Cancer Fund’s Hospital-based data management scheme.

**Publications**


**ABSTRACTS WHICH HAVE BEEN PUBLISHED**


Burmeister BH (2002). The role of radiotherapy in the management of oesophageal cancer. PROC COSA: 64.


**Lectures and Presentations**

BH Burmeister

A randomized phase III trial of preoperative chemoradiation followed by surgery (CR-S) versus surgery alone (S) for localized resectable cancer of the oesophagus

38th Annual Meeting of the American Society of Clinical Oncology, Orlando May 2002

Gemcitabine (Gemzar) and palliative radiation therapy for locally advanced non-small cell lung cancer. Oncology Regional Medical Conference, Hong Kong March 2002


Pre-operative chemotherapy versus pre-operative chemoradiation for oesophageal cancer. Australasian Gastrointestinal Trials Group (AGITG) Annual Meeting, Hobart September 2002


JA Harvey


M Leham


A survey of waiting times for radiation oncology in Australia. Workshop on Waiting Times for Radiation Therapy Sydney August 2002

A survey of patients’ attitudes towards waiting times for radiotherapy in Australia. Workshop on Waiting Times for Radiation Therapy Sydney August 2002
Public Service Relevant to Research

BH Burmeister
Chairman of Scientific Committee of Trans-Tasman Radiation Oncology Group
Board Member of Australasian Gastro-intestinal Trials Group
Member of National Cancer Control Initiative Colorectal Cancer Working Party
Deputy Chairman of Queensland Co-operative Oncology Group
Member of Medical and Scientific Committee of Queensland Cancer Fund
Reviewer Anti-Cancer council of Victoria, New South Wales Cancer Council and National Health and Medical Research Council for competitive research grants.
Editorial Board of International Journal of Radiation Oncology Biology Physics, Australian and New Zealand Journal of Surgery and Australasian Radiology

JA Harvey
Reference Group: Enhancing multidisciplinary care of women with breast cancer (University of Queensland)

BE Hickey
Post Graduate Medical Education Committee of Royal Australasia and New Zealand College of Radiologists
Member of the Breast and Colorectal Cancer Group of the Cochrane Collaboration

M Lehman
Member of the Service Planning and Development Committee of the Faculty of Radiation Oncology

L Burmeister
Member of the Queensland Institute of Medical Research Ethics Committee
Nephrology Department

The Nephrology Department enjoys the best patient survival rates of any dialysis and kidney transplant centre in Australia and New Zealand. The Unit performs over one hundred renal transplants per year, more than any other unit in the Southern Hemisphere, and cares for approximately six hundred established transplant patients and three hundred dialysis patients. Each year, the Unit provides 12,500 occasions of outpatient service. The team is involved in providing education to patients, allied health professional staff, general practitioners, graduate medical students, interns, residents, registrars and both renal and non-renal specialists.

A large number of research activities are conducted at both the clinical and basic science levels. The aim of the clinical research is to further improve outcomes for patients with kidney disease. There are over fifty projects currently underway, examining such diverse areas as infection control, anaemia management, cardiac risk factor intervention, optimal timing of dialysis commencement, obesity and kidney disease, enhancement of dialysis adequacy, novel prevention strategies for acute renal failure, preservation of kidney function, monitoring healthcare delivery quality, optimization of the safety of anti-rejection drug protocols in transplantation, and skin cancer and lymphoma prevention in kidney transplant patients. In the past two years, several of the research trials have earned national research awards including the Australian Kidney Foundation Clinical Research Award and have prompted changes in clinical practice guidelines.

The renal group’s basic science research focus is the investigation of mechanisms underpinning pathological kidney cell growth and fibrogenesis with a view to developing novel therapeutic strategies for the management of acute renal failure, chronic renal scarring and failure, and renal cell carcinoma.

Staff

CONSULTANT PHYSICIANS
Associate Professor David Johnson MB BS (Hons), FRACP, PhD (Syd), Director of Nephrology and Head of Renal Research Laboratory
Dr. Scott Campbell MB BS (Hons), FRACP, Acting Deputy Director of Nephrology
Dr. Carmel Hawley MB BS (Hons), FRACP, Consultant Nephrologist
Dr Nicole Isbel MB BS, FRACP, Consultant Nephrologist
Dr. John Burke MB BS, FRACP, Visiting Consultant Nephrologist
Dr. James Petrie MB. ChB, MD, FRACP, FRCPE, Visiting Consultant Nephrologist
Dr. Andrew Bofinger MB BS (Hons), FRACP, Visiting Consultant Nephrologist

RENAI RESEARCH LABORATORY SCIENTISTS
Dr David Vesey BSc (Hons), PhD (London), Senior Research Scientist, Renal Research Laboratory

CONSULTANT PHYSICIANS
Ms Catherine Cheung BSc (Hons), Research Scientist, Renal Research Laboratory
Ms Stephanie Sermon BSc (Hons), University of Kentucky Visiting Fellow

RENAI RESEARCH FELLOWS AND SENIOR RENAI REGISTRARS
Dr Balaji Hiremagalur MB BS, Senior Renal Registrar
Dr Markus Rumpsfeld MD, Nephrologist, University of Tromsø Research Fellow

RENAI UNIT RESEARCH NURSES / TRIAL COORDINATORS / DATA MANAGER
Kirsten Franzen BN RN PGDip Soc Sci (Health)
PG Dip Public Health
Allison Brown RN Grad Cert Clinical Data Management (Data Manager, Renal and Renal Transplant Unit)
Robyn Bailey BN RN
Alison Martin BN Sc RN Grad Cert Critical Care
Jenny Best RN BN
Kylie Reiger RN BN
Beth Beal RN BN

Current Research Activities

CLINICAL TRIALS
A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in pre-dialysis and dialysis patients. LANDMARK Trial (Isbel N, Johnson DW, Marwick T).

A prospective, non-controlled trial of the impact of troponin on peritoneal dialysis patient survival. (Johnson DW, Hawley CM, Campbell SB, Hickman P, Isbel N).

Cost savings from peritoneal dialysis therapy time extension using icodextrin (Johnson DW, Vincent K, Rumpsfeld M, Just PM).

A prospective comparison of the value of early versus late peritoneal equilibration tests in the assessment of peritoneal permeability in CAPD patients (Johnson DW, Vincent K).

A comparison of peritoneal equilibration test results using 2 different dialysate glucose concentrations (Johnson DW, Vincent K).

The impact of obesity on peritoneal dialysis outcomes in Australia and New Zealand (Johnson DW, McDonald S, Collins J).

Validation of the Tzamaloukas creatinine generation formula in peritoneal dialysis patients (Rumpsfeld M, Johnson DW).

Development of a formula for calculating creatinine clearance in CAPD patients (Rumpsfeld M, Johnson DW).

A prospective, non-controlled study of the role of memory T cells for Epstein-Barr virus in renal allograft rejection. (Johnson DW, Campbell SB, Franzen K, Burrows S).

Role of icodextrin in augmenting peritoneal ultrafiltration in high transporters. (Rumpsfeld M, Johnson DW).

A cross-sectional study of the role of macrophage colony stimulating factor as a risk factor for atherosclerosis in patients with end-stage renal failure (Isbel N, Marwick T, Johnson DW).

Correlates of subclinical left ventricular dysfunction in end stage renal disease: Influence of endothelial function and cardiovascular risk factors. (Fathi R, Isbel N, Khoury V, Case C, Haluska B, Johnson DW, Marwick TH).


An open-label, non-randomised evaluation of the Unica™ peritoneal dialysis system. (Vincent K, Johnson DW).


A randomized controlled trial assessing the impact of oral iron supplementation on mycophenolate mofetil absorption in renal transplant recipients (Johnson DW, Campbell SB, Hawley CM, Isbel N, Nicol DL, Taylor P, Pillans P).

The role of subclinical rejection in renal transplant outcomes (Johnson DW, Campbell SB, Isbel N, Hawley C, Nicol D).

The role of tumouresectomised kidneys as a potential source of allografts for renal transplantation (Nicol DL, Johnson DW, Campbell SB, Isbel N, Hawley C).


A retrospective observational cohort study assessing the clinical outcomes of amputation in dialysis patients (Hawley C, Isbel N, Campbell SC, Johnson DW).

A prospective controlled trial of superflux versus high flux dialysis membranes on homocysteine clearance in haemodialysis patients (Mudge D, Johnson DW, Campbell SB, Petrie JJ, Isbel N, Hawley C).

A prospective trial of intradermal hepatitis B vaccination in dialysis patients who have failed to seroconvert following standard subcutaneous vaccination (Hothersall E, Johnson DW, Campbell SB, Isbel N, Playford G, Hawley C).

Validation of the Cockcroft-Gault formula in overweight patients with chronic renal failure (Gibbs H, Johnson DW).

Determinants of peritoneal transport status in CAPD patients in Australia and New Zealand (Johnson DW, Rumpsfeld M, McDonald S).

Outcomes of peritoneal transport status in CAPD patients in Australia and New Zealand (Johnson DW, Rumpsfeld M, McDonald S).

A randomized controlled trial of Medihoney versus mupirocin in haemodialysis patients with tunnelled, cuffed haemodialysis catheters (Mudge D, Hothersall E, Isbel N, Campbell SB, Hawley C, Johnson DW).

A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in renal transplant recipients. Transplant LANDMARK Trial (Isbel N, Johnson DW, Marwick T).

Determinants of atherosclerosis, vasoreactivity and cardiac ischaemia in renal transplant recipients. (Isbel N, Johnson DW, Marwick T).
A multicentre, randomized controlled trial of the effect cholesterol reduction on cardiovascular endpoints in patients with chronic renal failure. (Neal B, Johnson DW, Pollock C, Walker R, McDonald S)

Initiation of Dialysis Early and Late (IDEAL) Trial. (Johnson DW) (Martin A, Sullivan M)

A Double-Blind, Randomised, Placebo-Controlled Study of an Oral Calcimimetic Agent (AMG073) in Secondary Hyperparathyroidism of End-Stage Renal Disease (ESRD) Subjects (Johnson DW, Beal B)

A Placebo-controlled, Double-blind, Extension Study to Assess the Long-term Safety of an Oral Calcimimetic Agent (AMG073) in Secondary Hyperparathyroidism of End Stage Renal Disease. (Johnson DW) (Beal B)

A Multicentre, Randomised, Open-label Study to Compare the Efficacy and Safety of an Oral Calcimimetic Agent (AMG073) When Two Different Vitamin D Regimens are used in Subjects with Secondary Hyperparathyroidism of End-stage Renal Disease (ESRD). (Johnson DW) (Beal B)

A controlled crossover study comparing homocysteine clearance in FX class high flux and standard high-flux.

A randomized, open-label study of continuous therapy with cyclosporine and sirolimus versus induction with cyclosporine and sirolimus followed by continuous therapy with sirolimus in renal allograft recipients.

An Open-Label Extension Study of the safety of Long-Term Administration of Sirolimus in Solid Organ Transplant Recipients

An Open label extension study of the safety of Long-term administration of sirolimus (Rapamune) in solid organ transplant recipients.

A randomized, open-label, comparative evaluation of conversion from calcineurin inhibitors to sirolimus versus continued use of calcineurin inhibitors in renal allograft recipients.

A 1 year Double-Blind, Double-Dummy and 2 year open-label, randomised, multicentre, parallel group study of the efficacy and safety of SDZ RAD tablets versus Mycophenolate Mofetil as part of triple immunosuppressive therapy in de novo renal transplant recipients (extended to 5 yrs) (Renal Transplant Unit Team) (Franzen, K)

A One Year, Randomized, Open label, Parallel Group Study to Investigate the Safety and the Effect of Myfortic (ERL080) in Combination with Either Full Dose or Reduced Dosed Neoral, in De Novo Kidney Transplant Recipients.

A 24 hour Holter monitoring in stable adult renal transplant patients maintained on cyclosporine and mycophenolate mofetil (CFTY729A2216).

A Double-Blind, Randomised, Placebo-Controlled Study of the effect of Rosuvastatin on cardiovascular outcomes haemodialysis patients (AURORA Trial) (Johnson DW, Beal B).

A randomized controlled trial of icodextrin versus 4.25% dextrose in CAPD patients with high peritoneal membrane permeability. (Johnson DW, Beal B).


An Observational, Long-Term, Multicentre Study of the Impact of Therapeutic Decision Making for Transplant Recipients Prescribed Neoral Under Conditions of Normal clinical Practice (Renal Transplant Unit Team) (Martin A)

A. LOCAL CLINICAL RESEARCH TRIALS

A randomised, open-label, prospective controlled trial of the effect of topical mupirocin on the rate of exit site infection and bacteraemia in haemodialysis patients with cuffed, tunnelled dialysis access catheters (Hollett P, MacGinley R, Kay TD, Isbel N, Hatten S, Hawley C, Campbell SC, Johnson DW).


A prospective trial of icodextrin as salvage therapy for peritoneal dialysis patients with refractory fluid overload (Johnson DW, Vincent K).

Determinants of residual renal function decline in peritoneal dialysis patients (Johnson DW, Vincent K).


A retrospective analysis of post-renal transplant lymphoproliferative disorder. (Johnson DW, Campbell SB, Isbel N, Hawley CM, Herzig KA, Juffs H, Gill D).

An open-label, non-randomised evaluation of the stay™ safe peritoneal dialysis system. (Vincent K, Johnson DW).

Outcome in renal transplant recipients in relation to skin cancer: influence of genes mediating host response to UV-induced oxidative stress. (Ramsay HM, Fryer AA, Smith AG, Harden PN, Hawley C, Nicol D)

Prevalence of skin cancer in renal transplant recipients (Ramsay HM, Hawley CM, Nicol D)

A survey of physicians’ attitudes to the CARI clinical practice guidelines (Johnson DW).

Renal transplant rejection: effect of genes influencing oxidative stress (Ramsay HM, Fryer AA, Smith AG, Harden PN, Hawley C, Nicol D)

A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in pre-dialysis and dialysis patients. (Isbel N, Kennedy R, Case C, Koons P, Johnson DW, Marwick T).

A study of transport utilization by dialysis patients. (Howells J, Tilsie C, Johnson DW).

A randomised, open-label, prospective, controlled trial of oral versus intravenous iron in peritoneal dialysis patients. (MacGinley R, Kay TD, Isbel N, Gissane R, Hawley C, Campbell SC, Johnson DW).

A randomised, open-label, prospective controlled trial of the effect of topical mupirocin on the rate of exit site infection and bacteraemia in haemodialysis patients with cuffed, dialysis access catheters (MacGinley R, Kay TD, Isbel N, Hatten S, Hawley C, Campbell SC, Johnson DW).

B. NATIONAL AND INTERNATIONAL TRIALS

A randomised Study of Novel Erythropoiesis Stimulating Protein (NESP) and Recombinant Human Erythropoietin (r-HuEPO) for Treatment of Anaemia in Predialysis Chronic Renal Failure Subjects (Johnson DW, Hawley CM, Isbel N, Rigby RJ, Herzig K) (Freeman J, Jones S)

A Randomised Comparative Study of Novel Erythropoiesis Stimulating Protein (NESP) and Recombinant Human Erythropoietin (r-HuEPO) for Prevention of Anaemia in Patients with Chronic Renal Failure Receiving Dialysis (Hawley CM, Johnson DW, Herzig K) (Freeman J, Jones S)

An Open-Label Study of the Long-term Safety of Novel Erythropoiesis Stimulating Protein (NESP) Therapy with Chronic Renal Failure Receiving Dialysis who were Previously Enrolled in NESP Clinical Trials. (Hawley CM, Johnson DW, Isbel N, Herzig K) (Freeman J, Jones S)

An open-label, non-randomised, multicentre phase II study evaluating the efficacy and safety of repeated administration of LF15-0195 in patients with persistent or relapsing primary vasculitis (Isbel N, Johnson DW, Campbell SB) (Freeman J)

Open-Label Study of Oral Sirolimus for Treatment of Refractory Solid Organ Allograft Rejection and Prophylaxis in Transplant Patients at Risk for Allograft Rejection in whom Approved Agents are Contraindicated, Not Tolerated, or Ineffective (Renal Transplant Unit Team) (Franzen K)
A Phase II Open-Label, Concentration-Controlled, Randomised, 6-month Study of “Standard-Dose” Tacrolimus + Sirolimus + Corticosteroids Compared to “Reduced-Dose” Tacrolimus + Sirolimus + Corticosteroids in Renal Allograft Recipients (Renal Transplant Unit Team) (Franzen, K)

“Combination Therapy with Prograf and Mycophenolate Mofetil (MMF); A Dose Tapering Investigation” (Renal Transplant Unit Team) (Franzen, K)

A Double-Blind, Randomised, Placebo-Controlled Study with Open-Label Dose Titration Phase to Assess the Safety and Efficacy of an Oral Calcimimetic Agent (AMG073) in Secondary Hypothyroidism of End-Stage Renal Disease (ESRD) Subjects (Hawley, C) (Bailey R)

A placebo controlled, double-blind study of the effect of two dose levels of sirolimus plus standard immunosuppressive therapy in renal allograft recipients (Renal Transplant Team) (Franzen K)

OTHER RESEARCH (RENAL RESEARCH LABORATORY & COLLABORATIVE BASIC SCIENCE RESEARCH)

Mechanisms and manipulation of cyclosporin nephrotoxicity in an in vitro model of the human renal cortical tubulointerstitium (Vesey DA, Cheung C, Johnson DW). Collaborations with University of Queensland Department of Medicine at Royal Brisbane Hospital.

The myofibroblast as a target for controlling renal fibrosis using in vitro and in vivo models (Cuttle, Endre Z, Johnson DW, Gobe G). Collaborations with University of Queensland Department of Medicine at Royal Brisbane Hospital.

Applying anti-apoptotic benefits of BCL-Xl in the ischaemia-reperfusion injured kidney (Johnson DW, Gobe G). Collaborations with University of Queensland Department of Medicine at Royal Brisbane Hospital.

Caveolins in ischaemic acute renal failure (Cuttle, Endre Z, Johnson DW, Gobe G). Collaborations with University of Queensland Department of Medicine at Royal Brisbane Hospital.

THE ROLE OF PROTEASE-ACTIVATED RECEPTORS (PARs) IN PROGRESSIVE RENAL SCARRING, INFLAMMATION AND FAILURE. (Johnson DW, Vesey DA, Douglas ML, Johnson DW, Nicol DL).

Strategies for targeted renal delivery of viral vectors for controlled and long-term gene therapy against chronic renal failure (Johnson DW, Gobe G).

The role of reactive oxygen species and protein kinase C in vitro models of human renal failure.

Modulating apoptosis in renal cell carcinoma (Johnson DW, Gobe G).

Role of the L-arginine nitric oxide pathway in tubulointerstitial fibrogenesis (using interleukin-1β stimulated human proximal tubule cells and renal cortical fibroblasts) (Vesey DA, Cheung C, Johnson DW).


Financial Support

$70,000, NHMRC. Manipulation of tubulointerstitial 'cross-talk' in progressive human renal disease. (DW Johnson, DA Vesey, G Gobe, Z Endre)

$68,400, NHMRC. Atherosclerosis, vasoreactivity and cardiovascular disease in end-stage renal failure. (TH Marwick, DW Johnson, N Isbel)

$35,000, University of Queensland. Strategies for targeted renal delivery of viral vectors for controlled and long-term gene therapy against chronic renal failure, (G Gobe, DW Johnson)

$10,000, Princess Alexandra Hospital Foundation. The role of IGF-I in renal cell carcinoma, (DW Johnson, C Cheung)

$36,000, NHMRC / AHMAC / Industry. IDEAL Trial. (CA Pollock, DW Johnson, DC Harris, B Cooper)

$29,000, Amgen. NESP 160 Trial. (C Hawley)

$2,400, Amgen. NESP 144 Trial. (C Hawley)
$24,000, Amgen. Calcimimetics Trial (183). (DW Johnson)

$1,870, Amgen. Calcimimetics Trial (240 Exten.). (DW Johnson)

$12,000, Fresenius. Homocysteine Clearance Study. (C Hawley)

$33,261.15, Janssen Cilag. Renal Anaemia Coordinator. (C Hawley)

$9,141, Janssen Cilag. Pre dialysis Eprex Trial. (C Hawley)

$45,880.60, Novartis. RAD2307 Trial. (SB Campbell)

$1,000, Novartis. MyPROMS Trial. (SB Campbell)

$8,500, Novartis. Neoral MOST Trial. (SB Campbell)

$2,000, Roche. Pegalated Epo Trial. (C Hawley)

$1,020, Wyeth. RapaTac Trial. (SB Campbell)

$1,000, Wyeth. Sirolimus 311 Trial. (SB Campbell)

$2,400, Wyeth. Sirolimus 310 Trial. (SB Campbell)

Publications


BOOK CHAPTERS


ARTICLES ACCEPTED FOR PUBLICATION

Campbell SB, Johnson DW. Patient management by cyclosporine C2 monitoring: Not enough science yet to justify the practice. Transplantation (In press)


Johnson DW, Gray N, Snelling P. A CAPD patient with fatal culture-negative peritonitis. Nephrology (In press)

Johnson DW, Mudge D, Sturtevant JM, Hawley CM, Campbell SB, Isbel NM, Hollett P. Determinants of residual renal function in new peritoneal dialysis patients. Peritoneal Dialysis International (In press)


Kay T, Playford H, Johnson DW. Haemodialysis versus continuous veno-venous haemodiafiltration in the management of severe valproate overdose. Clinical Nephrology (In press)


Lectures and Presentations

David Johnson (all invited presentations)

“Cardiovascular Disease in End-Stage Renal Failure,” Pfizer Cardiovascular Annual Scientific Meeting, February 23-24, 2002

“Automated peritoneal dialysis: Terrific Treatment or Trendy Toy?,” Asia Pacific Forum in Nephrology, Noosa, June 20-21, 2002


“From Epidemiology to Epistemology: The evolution of the CARI guidelines and their Impact on Australian Practice,” Renal Society of Australasia Annual Scientific Meeting, Melbourne, April 19-21, 2002

“Early Renal Insufficiency Workshop,” Internal Medicine Society of Australia and New Zealand Annual Scientific Meeting, Brisbane, May 3-5, 2002

“Diabetic nephropathy: is there anything we can really do about it?” Servier Physician’s Weekend, Brisbane, August 2-3

“The IDEAL Trial,” Australia and New Zealand Data Managers Society Annual Scientific Meeting, Brisbane, August 21-22, 2002


“New directions in fluid management,” 38th Australian and New Zealand Society of Nephrology Annual Scientific Meeting, September 2-4, 2002

“Bench to bedside: Diabetic nephropathy workshop,” Steno Hagedorn Down Under, Brisbane, 6-8 December, 2002

Post Graduate Students

Catherine Cheung, PhD

Awards

Peter Hollett
Finalist, Royal Australasian College of Physicians Advanced Trainee Research Award 2002 (“A randomized controlled trial of mupirocin in haemodialysis patients with tunnelled, cuffed catheters”)

David Mudge
Finalist, Australian Kidney Foundation Clinical Nephrology Research Award 2002 (“Determinants of residual renal function in peritoneal dialysis patients”)

Richard Kemp
Prize for best oral presentation at the Queensland RACP Advanced Trainees’ Annual Scientific Meeting 2002 (“Determinants of residual renal function in peritoneal dialysis patients”)
Public Service Relevant to Research

David Johnson
Committee Member, Caring for Australians with Renal Impairment (CARI) Clinical Practice Guidelines, Steering
Committee Member, Australian and New Zealand Dialysis and Transplant Association (ANZDATA) Registry Management
ANZDATA Registry Peritoneal Dialysis Advisory Committee Member
Peritoneal Dialysis Project Manager, ANZDATA Registry
Committee Member, Australian and New Zealand Society of Nephrology Representative on Dialysis Nephrology Transplant
Working Party Member, ANZSN CARI Guidelines for Peritoneal Dialysis Adequacy
Working Party Member, ANZSN CARI Guidelines for Prevention of Renal Failure Progression
Working Party Member, Australian Cancer Network National Clinical Practice Guidelines for Post-Transplant Lymphoproliferative Disorder

and Other Immunodeficiency-Related Lymphomas
Working Party Member, Australian and New Zealand Clinical Practice Guidelines on Icodextrin Usage in Peritoneal Dialysis
Queensland Government Advisory Committee for Strategies for Prevention of Progressive Renal Failure
Early Renal Impairment Task Force
Member, Kidney Check Australia Taskforce
Steering Committee Member, Initiation of Dialysis Early and Late (IDEAL)
International Faculty Member, Steno/Hagedorn Down Under Clinical Diabetes Meeting, Brisbane, 5-7 December 2002
Scientific Program Co-ordinator, Dialysis Nephrology Transplant Workshop, Barossa Valley, March 5-7, 2003
Respiratory Medicine

The Department of Respiratory and Sleep Medicine is the tertiary referral centre for the Queensland Health Southern Zone and for Northern New South Wales. All adult respiratory medicine services are provided with the exception of lung and heart lung transplantation and cystic fibrosis services.

The Department has a busy clinical service, and an active research program conducts and participates in undergraduate and postgraduate teaching activities under the direction of the University of Queensland Southern Clinical School and Griffith University.

The main areas of research are in sleep medicine mainly sleep disordered breathing, airway disease mainly asthma and chronic obstructive pulmonary disease (COPD), and lung cancer and respiratory infection.

Staff
Associate Professor John G Armstrong
Associate Professor Charles A Mitchell
Dr Craig Hukins
Dr Luke Garske
Dr Khoa Tran

RESEARCH ASSISTANT
Ms Margaret Dauth

Current Research Activities

CLINICAL TRIALS
Asthma Study: Assessment of the systemic effects of two inhaled steroids (ciclesonide 400 mcg bid versus fluticasone propionate 500 mcg bid in asthmatic patients. A double blind, double-dummy, randomised 12 week parallel group study

Asthma Study: A randomised, double-blind, study to evaluate the effect of adding Lyprinol to inhaled corticosteroids in patients with symptomatic asthma

Lung Cancer: A phase 1 trial to evaluate ZD1839 (Iressa) and concurrent chemo-radiation in patients with locally advance non-small cell lung cancer

Lung Cancer: A phase 1 multicentre study to evaluate a modified chemotherapy regimen (VIP) in extensive disease small cell lung carcinoma

COPD: A randomised double blind placebo controlled parallel-group study to evaluate the efficacy, safety and tolerability of oral Cilomilast (15mg be) when given as maintenance treatment for 12 months to subjects with Chronic Obstructive Pulmonary disease (COPD)

COPD: Effect of Roflumilast on exacerbation rate in patients with chronic obstructive pulmonary disease. A 52 week double blind study with 500 mcg roflumilast once daily versus placebo

Comparison of Heart rate variability between auto-titrating CPAP and standard CPAP. Randomised cross over study comparing the two modes of CPAP therapy, measuring overnight HRV and blood/urine measures of autonomic activity. Initial results to be presented to the Annual Scientific Meeting of the Thoracic Society of Australia and New Zealand.

Right heart changes in obesity. Collaboration with departments of cardiology and endocrinology assessing echocardiographic changes with weight reduction in morbidly obese patients. These patient will undergo screening sleep studies before and after weight reduction.

Speech in tracheostomised/ventilated spinal injuries patients. Collaboration with Speech Pathology assessing effect on speech by alterations to ventilator prescription and addition of positive end-expiration pressure.

Comparison of efficacy and safety of Zolpidem-MR and placebo in patients with primary insomnia. Pharmaceutical sponsored randomised-placebo controlled, double-blinded study of Zolpidem-MR in patients with primary insomnia. Patients underwent up to 6 sleep studies in a 4 week period. The study was only open for enrolment for 4-5 weeks.

Phase III study of the safety and efficacy of mannitol in assessing bronchial hyper-responsiveness in asthma. Industry-sponsored, single-blinded randomised cross-over study of patients with asthma (approximately 40) and a small number of controls (approximately 9) aimed to compare hypertonic saline challenges to mannitol. Ethics approval submitted 2002.
Awaiting commence of recruitment in June 2003 when drug becomes available.

Eastern Sea-board truck drivers study. Cross-sectional study involving confidential questionnaires to transport operators, also performed in NSW and Victoria. Information on driving habits, work conditions and symptoms of obstructive sleep apnoea were obtained. About 460 drivers were surveyed in Queensland up until Jan 2002. The data is currently under analysis for publication.

Observational study of the Respiratory High Dependency Unit Princess Alexandra Hospital Data presented by Dr Michelle Murphy, Senior Respiratory Registrar to Thoracic Society of Qld ASM November 2002.

Financial Support
$23,000, Sanofi-Synthelabo. Comparison of efficacy and safety of Zolpidem-MR and placebo in patients with primary insomnia. C Hukins, Ms Lynne Fraser, Manager, Sleep Disorders Centre.

Publications

Garske LA, Beatson S, Leech AJ, Walsh SL, Bell SC, Mattick JS. P. aeruginosa has reduced quorum sensing signal with sub-inhibitory ceftazidime or tobramycin.


Rifampicin and fusidic acid reduces the frequency of methicillin resistant staphylococcus aureus (MRSA) isolation in adults with cystic fibrosis and chronic MRSA infection. Proceedings of North American Cystic Fibrosis Conference. 2002.

Rifampicin and fusidic acid reduces the frequency of methicillin resistant staphylococcus aureus (MRSA) isolation in adults with cystic fibrosis and chronic MRSA infection. Am J Respir Crit Care Med 163 (5): A188 (2001)

Lectures and Presentations
Dr Craig Hukins
Update in sleep disorders in neuromuscular disease at the ASM, Australasian Sleep Society, October 2002.

Public Service Relevant to Research
Associate Professor Charles Mitchell
Chair, Evaluation Committee, National Asthma Campaign
Rheumatology Unit

The Rheumatology Unit specialises in care, investigation and treatment of all aspects of musculoskeletal conditions. It includes arthritis, various disorders of the bone and immune systems, as well as a huge number of short-term afflictions of the skeleton and its associated tendons, muscles and soft tissues.

Staff

Dr Phillip Vecchio, Director
Associate Professor Dr Ranjeny Thomas, Arthritis Foundation (Queensland) Rheumatology Research Laboratory
Dr John Webb, Senior Visiting Consultant Rheumatologist
Dr Martin Devereaux, Senior Visiting Consultant Rheumatologist
Dr Peter Landaeb, Locum Visiting Consultant Rheumatologist
Dr Daman Langguth, Rheumatology Registrar
Dr Musallam AlMashani, Visiting Rheumatology Trainee
Chris Downey, Research Nurse

Current Research Activities

CLINICAL TRIALS:
Ethics Committee Research Protocol 32/2000 Extension. Knoll/Abbott. DE018 - A multicentre open label continuation study with subcutaneous D2E7 for patients with rheumatoid arthritis who completed a preceding study with D2E7 and DE033 A Health Economic Evaluation Study

Ethics Committee Research Protocol 133/2000. Knoll. Protocol No DE013: Prospective multi centre randomised, double blind, active comparator controlled parallel group study comparing the fully human monoclonal anti-TNFα antibody D2E7 given every second week with Methotrexate given weekly and the combination of D2E7 and Methotrexate administered over 2 years in patients with early rheumatoid arthritis (PREMIER) and Protocol No DE032: Health economic evaluation in conjunction with clinical trial DE013, a prospective multi centre randomised, double blind, active comparator controlled, parallel groups trial comparing the fully human monoclonal anti-TNFα antibody D2E7 given every second week with Methotrexate given weekly and the combination of D2E7 and Methotrexate administered over 2 years in patients with early rheumatoid arthritis (PREMIER)

Ethics Committee Research Protocol 70/01. Pharmacia. Protocol CDP870-004. A Phase II multi-centre, double-blind, placebo-controlled two-panel study to compare the efficacy and safety of subcutaneous 50mg, 100mg, 200mg, 400mg, 600mg, and 800mg CDP870 versus placebo administered at 0, 4 and 8 weeks with assessments to Week 12 in the treatment of the signs and symptoms of patients with rheumatoid arthritis and a further dosing with sc 400mg CDP870 4-weekly with assessments to Week 112

Extension of research trial for an additional 52 weeks. A 12 week, phase II, double-blind, placebo-controlled, two-panel, dose response study of CDP870 in patients with rheumatoid arthritis, with a 100 week open label phase. Trial terminated June 2002 – due to problems with drug formulation


Financial Support

GRANTS

Dr P Vecchio
$5,196 Astra Zeneca. AZD 3582 (ZEST).
$2,519 MerckSharp & Dohme. MK-0663.
$11,239.80 Pharmacia, CDP-870
$17,820 Centocor. C0168T41 (Infliximab).
$1,166 Abbott. Open Label D2E7.

Public Service Relevant to Research
Dr P Vecchio
Reviewer, Journal of Rheumatology

Lectures and Presentations
Various presentations to Royal Australasian College of General Practitioners Training Program, GP groups, Sunnybank Arthritis Group. Invited.
Spinal Injuries Unit

The Spinal Injuries Unit (SIU), along with the Transitional Rehabilitation Program (TRP) and the Spinal Outreach Team (SPOT) make up the Queensland Spinal Cord Injuries Service (QSCIS). QSCIS has developed a unique continuum for the acute care, rehabilitation and ongoing management of individuals with spinal cord injuries, representing a best practice model in this field.

The Spinal Injuries Unit provides acute management and primary rehabilitation services to people from Queensland and Northern New South Wales. The TRP provides ongoing rehabilitation in the community and allows earlier discharge from the SIU. The SPOT provides allied health and nursing consultancy and early intervention service for people with spinal cord injuries, their families and other health professionals all over Queensland.

The SIU is currently undertaking a wide variety of research projects that span a spectrum from spinal cord regenerative research, through acute management issues to areas of rehabilitation research. A multidisciplinary Research Committee has recently been established with QSCIS to assist with planning and undertaking research.

The Phase 1 human trial investigating the safety and potential of olfactory ensheathing glial cells for regeneration of the injured spinal cord is the first of its type. The cells are obtained through simple nasal biopsy from the subjects nose and cultured by the scientific team at Griffith University prior to re-implantation into the subjects spinal cord.

The SIU is also part of an Australia-wide multi-centre clinical drug trial investigating the efficacy of a new agent for control of neuropathic pain following spinal cord injury (SCI).

Speech and communication abilities, psychological outcomes (including anxiety) and adjustment and coping in people following SCI are also being investigated.

The mission is to provide a state-wide service that enables people with SCI to achieve their maximum potential.

All three components of the QSCIS have active and expanding research programs.

Staff
Dr Tim Geraghty, Director of Rehabilitation (Spinal Injuries)
Dr William Davies, Visiting Medical Officer
Dr Susan Urquhart, Senior Medical Officer
Alison New, Nurse Practice Co-ordinator
Tricia Fronek, Senior Social Worker
Beth Baird, Senior Physiotherapist
Glenda Price, Senior Occupational Therapist

RESEARCH ASSISTANTS
Julie Cochrane, Clinical Research Co-Ordinator / Project Manager
Dr Pat Dorset, Research Officer / Social Worker
Dr Cliff Fisher, Medical Officer/ Research (01/03 - ongoing)
Helen Le Good, Clinical Research Co-Ordinator
Dr Jeanette Quinn, Medical Officer / Research (08/02 – 01/03)
Andrew West, Research Officer / Database Manager

Current Research Activities

CLINICAL TRIALS
The impact of cervical spinal injury on communication: A physiological, acoustic and perceptual analysis. MacBean N, Ward E, Geraghty T, Hukins C, Cahill L, Murdoch B, Bock M, Hancock K Collaboration with the University of Queensland.

The Regeneration of Human Spinal Cord Injuries with Olfactory Glial Cells – A Phase 1 Trial. Geraghty T, Perry C, Licina P, Nowitzke A, Féron

F, Urquhart S, Davies W, Mackay-Sim, A. Collaboration with Griffith University.


An open-label extension to evaluate the safety and efficacy of pregabalin for treatment of chronic central neuropathic pain after spinal cord injury.
OTHER RESEARCH


Staff knowledge, comfort and attitudes towards sexuality within a spinal cord injuries rehabilitation service. Fronek P, Booth S, Miller D, Kendall M, Geraghty T.


Characteristics and outcomes of patients with spinal canal stenosis and hyperextension injuries of the cervical spine. Bellamy N, West A, Geraghty T. Collaboration with CONROD, UQ.

Financial Support

$170,000 Princess Alexandra Hospital Foundation (Grant), The regenerative potential of olfactory glial cells in human spinal cord injury – Phase 1 Trial, (Geraghty T, Mackay-Sim A, Perry C, Feron F, Licina P, Cochrane J, Urquhart S, Nowitzke A)

$20,000 Paraplegic Benefit Fund, (Donation), The regenerative potential of olfactory glial cells in human spinal cord injury – Phase 1 Trial, (Geraghty T, Mackay-Sim A, Perry C, Feron F, Licina P, Cochrane J, Urquhart S, Nowitzke A)

Private donations, The regenerative potential of olfactory glial cells in human spinal cord injury – Phase 1 Trial, (Geraghty T, Mackay-Sim A, Perry C, Feron F, Licina P, Cochrane J, Urquhart S, Nowitzke A)

Princess Alexandra Hospital Foundation (Grant), Longitudinal tracking of anxiety amongst people with spinal cord injury who are approaching community re-entry. A study of two rehabilitation units, (Kendall M, Geraghty TJ, Brown D, Olver J)

Phizer (Pharmaceutical sponsorship), A 12-week randomized, double-blind, placebo-controlled, parallel-group multicentre study of pregabalin for treatment of chronic central neuropathic pain after spinal cord injury, (Geraghty TJ, Urquhart S, LeGood H, Quinn J, Fisher C)

Publications

ARTICLES ACCEPTED FOR PUBLICATION


Lectures and Presentations

Féron F, Mackay-Sim, Geraghty T, Perry C, Urquhart S, Licina P, Nowitzke A, Cochrane J. Repairing the human spinal cord with nasal olfactory ensheathing cells. 3rd Asia Pacific Symposium on Neural Regeneration, Perth, December 2002


Kendall M, Brown D, Olver J, Geraghty TJ. Longitudinal Tracking of Anxiety among People with Spinal Cord Injury who are Approaching Community Re-Entry – a Pilot Study. 10th Annual Scientific Meeting, Australasian Faculty of Rehabilitation Medicine, Brisbane, 7-10th May, 2002.

Queensland Spinal Cord Injuries Service: a Continuum from acute care to the community. Cox R, Geraghty TJ, Ungerer G. 10th Annual Scientific Meeting, Australasian Faculty of
Rehabilitation Medicine, Brisbane, 7-10th May, 2002.

Maugham L, Amsters D, Geraghty TJ, Thomas J, Gargett S. Modelling Costs for Pressure Area Management in the Community against Costs of Hospital Care. 10th Annual Scientific Meeting, Australasian Faculty of Rehabilitation Medicine, Brisbane, 7-10th May, 2002.

Public Service Relevant to Research

Dr T Geraghty
Research Committee - Paraplegic and Quadriplegic Association of Queensland.
Spinal Outreach Team (SPOT)

The Spinal Outreach Team (SPOT) supports people with spinal cord injury (SCI), their families and service providers throughout Queensland. It is part of the unique continuum of care model of the Queensland Spinal Cord Injuries Service (QSCIS). The team provides consultancy and early intervention services and consists of physiotherapists, occupational therapists, social workers and a clinical nurse. SPOT aims to enhance access to specialist SCI services for people living outside Brisbane and to assist in preventing human and financial costs of complications. The team achieves these aims through service provision, education, training, evaluation and research.

Key areas of research have been service evaluation and improving outcomes for people with SCI and their significant others through research activities in the following areas:

- evaluating direct client outcomes through goal attainment scaling;
- readmission research projects aimed at preventing the human and financial costs of complications;
- investigating the long term outcomes of people with SCI in Queensland; and
- examining the problems faced by the significant others of people with SCI and what contributes to successful outcomes for partners of people with SCI.

From 1997 to 2002, SPOT has been funded by the Motor Accident Insurance Commission (MAIC) through the Centre of National Research on Disability and Rehabilitation Medicine (CONROD). In May 2002, Queensland Health announced that the SPOT application for ongoing funding had been approved. Research continued to be a major focus for SPOT. A total of $99,000 in research grants were obtained by the team during the past five years.

Staff
Ruth Cox, Program Manager
Kiley Pershouse, Acting Program Manager
Delena Amsters, Research Officer
Sue Lightbody, Research Officer

Current Research Activities
Goal Attainment Scaling as a measure of client outcomes. (R Cox, D Amsters).
Outcomes in long duration spinal cord injury: Documentation of multiple integrated trajectories of wellbeing and comparative analysis of outcome measures. (D Amsters, K Pershouse, P Kuipers (ABIOS).
Modelling costs for pressure area management in the community against the cost of hospital care. (L Maugham, D Amsters, S Gargett(QUT), T Geraghty (SIU).
Evaluation of the effectiveness of Spinal Outreach Team follow-up on the prevention of rehospitalisation for pressure areas. (R Cox, D Amsters, C Bayliss, L Maugham).
Hospital readmissions following implementation of the Transitional Rehabilitation Program and Spinal Outreach Team (hospital readmission during the first two years after rehabilitation). (M Kendall (TRP), Rth Cox, M Boulton (TRP), G Ungerer(TRP).
Exploring the efficacy of coping mechanisms employed by the partners of people with spinal cord injury. D Amsters, G Carlson(UQ), M Foster(CONROD).
Validation of the SPOT risk screening tool. (D Amsters, K Pershouse, R Cox, L Tooth (UQ).

Financial Support
CONROD, Outcomes in long duration spinal cord injury: Documentation of multiple integrated trajectories of wellbeing and comparative analysis of outcome measures, (Delena Amsters (SPOT), Kiley Pershouse (SPOT), Pim Kuipers (ABIOS)
$5000 Princess Alexandra Hospital Foundation Quality in Health Care Grant, Exploring the affects and responses of the partners of people with spinal cord injury, (Delena Amsters (SPOT), Glenys Carlson (UQ), Michelle Foster (CONROD)

Publications

**Lectures and Presentations**

Amsters, D., Carlson, G., Foster, M. Aspects of stress experienced by the significant others of people with spinal cord injury. Australian Faculty of Rehabilitation Medicine Conference, Brisbane.

Amsters, D., Carlson, G., Foster, M Aspects Of Stress Experienced By The Significant Others Of People With Spinal Cord Injury  PA Week, Brisbane

Bayliss, C. Complications following SCI: An Overview for Health Care Professionals Working in the Community, Health Professionals in the North Conference, Townsville

Ceely, M. Spinal Outreach Team: meeting the educational needs of rural and remote Queensland service providers. Australian Faculty of Rehabilitation Medicine Conference, Brisbane.

Cox, R., Geraghty, T., Ungerer, G. Queensland Spinal Cord Injuries Service: a continuum from acute care to the community. Australian Faculty of Rehabilitation Medicine Conference, Brisbane.


Maugham, L., Amsters, D., Geraghty, T., Thomas, J., Gargett, S. Modelling costs for pressure area management in the community against costs of hospital care. Australian Faculty of Rehabilitation Medicine Conference, Brisbane.


**Post Graduate Students**

Delena Amsters, Master of Physiotherapy, The Wheelchair Posture of People With Tetraplegia Jodie Thomas, Master of Public Health, Modelling costs for pressure area management in the community against the cost of hospital care (SPOT co-project with QUT)

**Public Service Relevant to Research**

Ruth Cox Reviewer, Clinical Rehabilitation Journal
Transitional Rehabilitation Program (TRP)

The Transitional Rehabilitation Program (TRP) provides post-primary rehabilitation services for people with spinal cord injuries (SCI), who have undergone in-patient rehabilitation in the Queensland Spinal Injuries Unit. TRP forms an integral part of the continuum of care for people with SCI in Queensland, as part of the Queensland Spinal Cord Injuries Service (QSCIS). Rehabilitation services are provided in the community in clients’ homes or in the home-like setting of TRP accommodation. The program is designed to relocate the final weeks of rehabilitation from the hospital setting to the community.

The primary objectives of TRP are to:

- provide a safe environment for people to practice new skills and care routines in a "real life" setting that mirrors their home and community environment
- encourage the exploration of recreational, transport, and vocational options without the restrictions of hospital environment
- reduce anxiety related to leaving a "safe" hospital environment
- provide private time and space for families to re-establish relationships and adjust to lifestyle changes in a supportive environment
- assist individuals to gain confidence in re-adjusting to family, community and social roles
- provide practical training for family or paid carers
- provide experience in managing paid carers (where necessary)
- support better integration of services by linking with existing community supports.

The TRP research agenda has focussed primarily on the areas of rehabilitation outcomes in the management of people with SCI. Throughout 2002, significant resources were also committed to researching staff knowledge and educational needs with respect to post-SCI sexuality education and rehabilitation.

Staff

Greg Ungerer, Manager
Sue Booth, Social Worker
Jennifer Campbell, Physiotherapist
Daphne Davis, Clinical Nurse
Melissa Wallace, Occupational Therapist
Susan Tiscia, Therapy Assistant
Roslyn Jones, Administrative Officer*
Rhonda Peters, Administrative Officer*
Lois Kidd, Administrative Officer*

* Denotes staff shared with Spinal Outreach Team and Acquired Brain Injury Outreach Service

RESEARCH ASSISTANT

Melissa Kendall

Current Research Activities

Transitional Rehabilitation Program – Evaluation of an alternative model of service delivery in the rehabilitation of individuals with SCI.

Readmissions to hospital following spinal cord injury. This study is being jointly conducted by the Transitional Rehabilitation Program and the Spinal Outreach Team (SPOT) to examine the impact of these programs on the hospital readmission rate for people with SCI. The first stage of the study involved tracking hospital readmission in a cohort of spinal injured individuals who were discharged from primary rehabilitation prior to the introduction of these services. The first stage of the project has been completed and the findings published. The second stage of the study involves tracking hospital readmission in a cohort of spinal injured individuals who have been discharged from primary rehabilitation since the introduction of these services. Data collection for stage 2 has been finalised, with data analysis due to be completed by mid-2003. It is anticipated that a paper will be submitted for publication in late 2003.

Longitudinal tracking of anxiety among people with spinal cord injury who are approaching community re-entry. This project is a collaborative project between the Transitional Rehabilitation Program, the Spinal Injuries Unit at the Princess Alexandra Hospital and the Victorian Spinal Cord Injury Service at the Austin and...
Repatriation Hospital in Melbourne. The project received $43,000 funding from the Princess Alexandra Hospital Foundation and data collection commenced in April 2002. The study aims to track anxiety outcomes among people with spinal cord injury just prior to and following discharge from primary rehabilitation in two rehabilitation units with different clinical practices and continuum of care environments.

A comparison of bladder infections in hospital and community environments for people with spinal cord injury - This study aims to compare bladder infections in hospital and community environments for people with spinal cord injuries. Specifically, the study aims to compare the prevalence of bladder infection, the severity of bladder infection and the pathogens responsible for bladder infection in these two environments and examine the impact of demographic factors and bladder management technique on bladder infection prevalence. Preparation of the final report for this study is underway.

The Clinical Outcomes Variables Scale (COVS): Its clinical utility as a mobility outcome measure for clients with spinal cord injury within a continuum of care environment - This project aims to examine the clinical utility of the Clinical Outcomes Variables Scale (COVS) as a mobility outcome measure for people with spinal cord injury within a continuum of care environment. Specifically, the study aims to:
- determine the psychometric properties of the instrument in this clinical setting
- examine the sensitivity of the instrument for detecting mobility change over time
- examine the ability of the scale to discriminate across level of injury
- determine whether the scale has greater discriminant and predictive validity in relation to mobility than the more general measures of functional independence.

Currently, four papers are being prepared on the results of this work. The study received $5,700 funding from the Princess Alexandra Hospital Foundation for the 2002 year. One paper has been submitted to the Canadian Journal of Physiotherapy for publication, with the remaining papers nearing completion.

Goal attainment within a community-based multidisciplinary rehabilitation setting: Utilising a modified version of the Canadian Occupational Performance Measure (COPM) for use within a community-based multidisciplinary setting for people with spinal cord injury. Specifically, the study aims to:
- examine the sensitivity of the scale in detecting changes in goal performance and satisfaction
- determine the psychometric properties of the scale in this clinical setting
- identify demographic differences in multidisciplinary goal attainment and
- examine the relationship between quality of life, functional independence and goal attainment within the multidisciplinary environment.

Staff knowledge, comfort and attitudes towards sexuality within a spinal cord injuries rehabilitation service: Design and evaluation of an education program - This project is a collaborative study being conducted by the Transitional Rehabilitation Program and the Spinal Injuries Unit and aims to develop and evaluate an education program aimed at promoting staff development in the area of sexuality education. Specifically, the study aims to:
- identify staff educational needs related to their knowledge of, comfort with and attitude towards provision of sexuality rehabilitation to people with spinal cord injuries
- develop an education program for staff that addresses their educational needs in the area of sexuality rehabilitation
- evaluate the ability of the education program to increase staff knowledge, improve staff comfort and promote positive staff attitudes towards sexuality among people with spinal cord injury

This project is being funded internally by the Spinal Injuries Unit. Stage 1 of the project is has been completed with the education program having been developed and delivered in mid-2002. Education was completed in late 2002. Data analysis is currently underway.

Financial Support
$5700 Princess Alexandra Hospital Foundation. The Clinical Outcomes Variables Scale (COVS): Its clinical utility as a mobility outcome measure for clients with spinal cord injury within a continuum of care environment, (J Campbell, M Kendall)

$21,000 Princess Alexandra Hospital Foundation. Longitudinal tracking of anxiety among people with spinal cord injury who are approaching...
community re-entry, (M Kendall, Victorian Spinal Cord Injuries Service)

$23,717, Spinal Injuries Unit. Staff knowledge, comfort and attitudes towards sexuality within a spinal cord injuries rehabilitation service: Design and evaluation of an education program, (S Booth, Dr T Geraghty, P Fronek, D Miller, M Kendall)

**Publications**

**ABSTRACTS PUBLISHED**


Campbell, J, & Kendall, M. (2002). Investigating the suitability of the Clinical Outcomes Variables Scale (COVS) as a mobility outcome measure in spinal cord injury rehabilitation. Abstract published in conference proceedings of the 10th Annual Scientific Meeting of the Australasian Faculty of Rehabilitation Medicine, Brisbane, May.


Ungerer, G*. (2002). Improving outcomes in end stage primary rehabilitation for people with spinal cord injury: Function, length of stay and cost effectiveness. Abstract published in conference proceedings of the 10th Annual Scientific Meeting of the Australasian Faculty of Rehabilitation Medicine, Brisbane, May.

**ARTICLES ACCEPTED FOR PUBLICATION**

Kendall, M., Ungerer, G., & Dorsett, P. (undergoing revision for publication). Bridging the gap: Transitional rehabilitation services for people with spinal cord injury. Submitted to Disability and Rehabilitation.


**Lectures and Presentations**

**PRESENTATIONS**


Campbell, J*, & Kendall, M. (2002). Investigating the suitability of the Clinical Outcomes Variables Scale (COVS) as a mobility outcome measure in spinal cord injury rehabilitation. Presentation at the 10th Annual Scientific Meeting of the Australasian Faculty of Rehabilitation Medicine, Brisbane, May.


Ungerer, G*. (2002). Improving outcomes in end stage primary rehabilitation for people with spinal cord injury: Function, length of stay and cost effectiveness. Presentation at the 10th Annual Scientific Meeting of the Australasian Faculty of Rehabilitation Medicine, Brisbane, May.

Post Graduate Students
Melissa Kendall, PhD, Griffith University School of Human Services

Public Service Relevant to Research
Greg Ungerer
Member, Allied Health Research Steering Committee, Division of Clinical Support Services
**Vascular Medicine Department**

The Department of Vascular Medicine provides a clinical service in the diagnosis and management of arterial, venous and lymphatic diseases. Research activities include investigation of vascular diagnostic techniques and participation in clinical trials. Teaching activities include teaching of medical students, FRACP part 1 candidates, radiology and vascular surgery registrars and vascular scientists.

**Staff**

Dr Harry Gibbs, Director  
Rebecca Hetherington, Senior Vascular Scientist  
Ian Catchpole, Vascular Scientist  
Susan Gibb, Vascular Scientist

**RESEARCH ASSISTANT**

Michelle Roch

**Current Research Activities**

**CLINICAL TRIALS**

A phase II clinical evaluation to investigate the safety and efficacy of topically applied biologically active milk-derived extract (BG011A) for the treatment of chronic venous leg ulcers. GroPep Pty Ltd

THRIVE II – Efficacy and safety of the oral direct thrombin inhibitor H376/95 versus standard therapy (enoxaparin and warfarin) for acute, symptomatic deep vein thrombosis with or without pulmonary embolism. A double-blind, international study. AstraZeneca. Dr H Gibbs is the principal investigator for Australia for this study.

A multicentre, prospective, randomised, study to compare the efficacy of a New Compression Bandage System with Profore in the treatment of venous leg ulcers. Smith and Nephew

Genetic association in chronic venous ulceration. Pfizer

EXCLAIM – A double-blind, placebo controlled, parallel, multicenter study on extended VTE prophylaxis in acutely ill medical patients with prolonged immobilization. Aventis Pharma

CHARISMA – Clopidogrel for high artherothrombotic risk and ischemic stabilisation, management and avoidance. Sanofi-Synthelabo Recherche

**OTHER RESEARCH**

A randomised trial comparing Medihoney to mupirocin in the prevention of catheter associated infections in patients undergoing haemodialysis by a temporary intravascular catheter. In association with the Department of Nephrology, Princess Alexandra Hospital.

PICC line associated thrombosis: the incidence and risk factors in a teaching hospital practice.

Radial artery compression in the anatomical snuffbox by the extensor pollicis longus tendon: clinical and ultrasound features.

A randomised trial to determine the effect of body position and graduated compression stocking length on femoral venous blood flow velocity. In association with the Princess Alexandra Hospital Intensive Care Department, and the Griffith University Faculty of Nursing and Health.

Is ultrasound enough for planning peripheral arterial intervention? - The PADUA study. In association with the Departments of Vascular Surgery at the Royal Brisbane and Gosford Hospitals and supported by a grant from the Department of Health and Aged Care. (completed project)

**Financial Support**

$10,000, GroPep Pty Ltd. A phase II clinical evaluation to investigate the safety and efficacy of topically applied biologically active milk-derived extract (BG011A) for the treatment of chronic venous leg ulcers. (Dr H Gibbs, Dr R Fitridge)

$6,000, AstraZeneca. THRIVE II, (Dr H Gibbs)

$12,000, Smith and Nephew. A multicentre, prospective, randomised, study to compare the efficacy of a New Compression Bandage System with Profore in the treatment of venous leg ulcers. (Dr H Gibbs).

**Publications**


**Lectures and Presentations**

The following presentations were made at Vascular 2002, a combined meeting of the Michael E DeBakey Surgical Society, the ANZ Chapter of the Society for Vascular Surgery and the ANZ Chapter of the International Union of Angiology:

- G Tervit, S Gett, H Gibbs. A thrombosed aneurysm of the inferior vena cava - case report and investigative findings

- I Catchpole, R Hetherington, H Gibbs. Bilateral asymptomatic internal carotid artery saccular aneurysms

- C Askew, B Bourke, H Gibbs, P Walker. Is ultrasound enough for planning peripheral arterial intervention? - The PADUA study

- A Limpus, R Hetherington, W Chaboyer, H Gibbs. A randomised trial to determine the effect of graduated compression stocking length and body position on femoral venous blood flow velocity

- H Gibbs. Imaging for unusual carotid pathologies

- The role of duplex in the assessment of renovascular hypertension

- New drugs for prophylaxis and treatment of venous thromboembolism – what’s coming?

**Public Service Relevant to Research**

Dr Gibbs

- Editorial board of Primary Intention
- Reviewer for Internal Medicine
- Grant reviewer for the National Heart Foundation
- Grant reviewer for the National Health and Medical Research Council
- Member, the Research Council of the Australian and New Zealand Society of Vascular Surgery
Academic Unit in Geriatric Medicine

incorporating the Geriatric and Rehabilitation Unit Princess Alexandra Hospital

The Academic Unit in Geriatric Medicine, University of Queensland (UQ), was established in mid-2002 with the appointment of the Chair in Geriatric Medicine for the University of Queensland, Professor Len Gray. The Unit aims to build on the excellent clinical and biological research already in place within the Geriatric and Rehabilitation Unit of Princess Alexandra Hospital.

The Unit is in the early stages of development, with appointment of key staff still in progress at the time of writing. In the short term, the Unit will comprise the Chair, Senior Lecturer, Senior Research Fellow and Research Assistants. Some research projects are in train, while several others are in development and pilot phases. The research focus will be broad, reflecting the wide spectrum of research activity in ageing and aged care.

The Unit has a close affiliation with the Australasian Centre on Ageing, based at the University of Queensland. Active links with the University of Queensland School of Population Health, the emerging Institute for Brain Research and other clinical research programs within Princess Alexandra Hospital are being developed.

The research activities currently have several foci: Biological research around the genetic influences in Parkinson’s disease; clinical research in geriatric medicine; and health services and policy research in geriatric medicine and aged care.

The Unit has established regular research forums, that have a multi-disciplinary focus. These forums underpin research project development, and also provide a forum for expert visiting speakers.

Staff

Professor Len Gray, Director, (Academic Unit in Geriatric Medicine, School of Medicine, University of Queensland)

SENIOR RESEARCHERS

Dr George Mellick (Research Fellow, University of Queensland School of Medicine)

Dr Paul Varghese (Director of Geriatric Medicine, Princess Alexandra Hospital)

Colleen Cartwright (Senior Research Fellow)

RESEARCH ASSISTANT:

Margaret Yeo

Current Research Activities

Mapping of Hospital Aged Care Services for the Department of Human Services, Victoria on behalf of AHMAC. L Gray (2001–02)


Review of Specific Aged Care Services in Brisbane North for The Royal Brisbane and Prince Charles Hospital Health Service Districts. L Gray (2002-03)

CLINICAL AND HEALTH SERVICES RESEARCH

Development of a formal protocol for assessment of older people in acute care (in association with interRAI collaborative) L Gray


FOOD (Feed Or Ordinary Diet) after stroke. P.Aitken

Interacting effects of attention and balance in depressed elders. A Broome, S Brauer, S Taylor, P Varghese

Patients Waiting Placement for Residential Care. P Varghese, P Hewitt, S Cummings. An observational study of nine Public Hospitals in south-east Queensland which examines the scope and demographic characteristics of patients who are presently in acute public hospitals but require residential care.

"Preventing Falls in Acute and Rehabilitation Hospitals” and "Preventing Falls and Fractures in At-Risk Groups of Older People” as part of Prevention of Injuries in Older People (NHMRC...
Recruitment of Parkinson’s Disease (PD) patients and families. G Mellick

Studies on oxidative phosphorylation in PD. G Mellick (in collaboration with the Centre for Genomics and Bioinformatics, Karolinska Institute, Sweden - Professor A.J. Brookes)

Iron transport and PD. G Mellick

Studies on the parkin gene in early onset PD. G Mellick

Pharmacogenetics studies in PD. G Mellick

Cigarette smoking, genetic risk factors and the aetiology of Parkinson’s disease: An examination of gene-environment interactions. G Mellick (in collaboration with the University of Sydney – Professor D.G. Le Couteur and the School of Public Health, Queensland University of Technology- Dr M.P. Dunne and Professor B. Newman)

Financial Support

**CLINICAL AND HEALTH SERVICES RESEARCH**

$100,000, Utah Foundation. Health services research and development. (L Gray).

NDHP4 Mater project. (L Gray, P Varghese)


**BIOLOGICAL RESEARCH**

$71,480, Geriatric Medical Foundation. Parkinson's disease and aging. (GD. Mellick)

$10,000, Princess Alexandra Hospital Foundation. Parkin gene analysis in Australian early onset Parkinson's disease. (GD. Mellick, PA. Silburn)

$10,000, Alzheimer's Australia Research Foundation. Genetic variations in the iron regulatory protein 2 gene in Alzheimer's disease,. (DD. Buchanan, GD Mellick, JA Chalk)

$10,000 Princess Alexandra Hospital Foundation. Single Nucleotide Polymorphisms (SNPs) in the Iron Regulatory Genes, HFE and IREB2, in Parkinson's disease. (DD Buchanan, GD Mellick, JA Chalk)

Publications


ARTICLES ACCEPTED FOR PUBLICATION


Lectures and Presentations

L Gray (all invited unless otherwise stated)

“Older People in Emergency Departments.” Presented 5/12/2002 at the Medical Grand Round, Redcliffe Hospital, Brisbane.


“The Future of Aged Care in Australia.” Presented 29/10/2002 at the Annual General Meeting of the Strathdon Community – A Care Program of the Uniting Church in Australia, Melbourne.


“What is the Place of Transition Care.” Presented 25/6/2002 at the Australian Society for Geriatric Medicine Annual Scientific Meeting, Darwin.


“Issues in Contemporary Practice of Geriatric Medicine?” Presented 1/5/2002 for the Australian Society for Geriatric Medicine, Queensland Division, Brisbane.


P Varghese: (all invited unless otherwise stated)

"Physiology of Ageing" regular lecture as part of the RACP lecture series

"Health aspects of retirement" regular lecture as part of the State Government Superannuation Board

"Principles of Geriatrics" - RACGP CME program and Rural GP CME program

"Grey Matters" - General practice dementia workshop program (Funded by Pfizer)

"Minds Matters" - General practice dementia workshop program (Funded by Pfizer)

"Bed Blocking - What are the Issues" - Presented 21/3/02 at the "Acute Aged Care Nursing in General Hospitals National Conference – Brisbane

“No life is worthless” for the affirmative debate, Brisbane Institute, Customs House Brisbane, April 2002

"Neurology in the Elderly" Presented 7/5/02 at the Joint Scientific meeting of the RACP Annual Scientific Meeting, Brisbane.

“No person over 80 should be on more than 5 drugs” for the affirmative debate presented at the ASEANZ conference Melbourne October 2002

G Mellick: (all invited unless otherwise stated)

“The aetiology of Parkinson’s disease.” Presented 4/2/02 at the Princess Alexandra Hospital Grand Rounds.

“What we do and do not know about the cause of Parkinson’s disease.” Lecture on 21/2/02o for Tweed Heads PD Support Group.

“Do genetic factors influence the development of Parkinson’s disease?” Presented 28/3/02.at the Centre for Genomics Research, Griffith University, Gold Coast.

“Targeting Tremors- the genetics of Parkinson’s disease.” Platform presentation as part of PA Week, 17/6/02.

“Genetics: unraveling the cause and informing the treatment of Parkinson’s disease”. Presented 24/9/02 to the School of Pharmacy, University of Queensland.

Post Graduate Students (in progress)
Daniel Buchanan, PhD (UQ Medicine)
Yifu Deng, PhD (Public Health QUT)
Coral Gartner, PhD (Public Health QUT)

Public Service Relevant to Research

Professor Len Gray
Member, Editorial Advisory Committee, Australian Journal on Ageing (2002-)
Fellow, InterRAI Collaborative (2001-)
InterRAI is an international working group of aged care researchers that develops assessment protocols, data sets and quality tools for aged care and related fields.

Dr Paul Varghese
Member, Clinical Reference Group advising the Working Party on a number of research projects conducted by the AHMAC. (Australian Health Ministers Advisory Council)

Dr George Mellick
Vice-President of Parkinson’s Queensland Incorporated (community-based support organisation for people with PD and their carers).
Cardiovascular Imaging Research Group

The Cardiovascular Imaging Research Group provides clinical and research capability in cardiac imaging and image processing, including multi-modality interests that are unique in the Asia-Pacific region. The Group has expertise in new echocardiographic imaging technologies, myocardial viability, early detection of atherosclerosis, assessment of contractile reserve, and studies of how cardiac imaging techniques can influence patient outcomes and cost-effectiveness of care. This work is carried out in the research echo/stress area in the main hospital and image processing area in the Department of Medicine.

The Group offers a level of infrastructure unmatched in the region. Resources include data acquisition with three research echo/vascular ultrasound machines (plus access to additional clinical machines), equipment for exercise and pharmacologic stress testing and VO2 analysis. Some of these devices carry developmental software that is being developed in tandem with industry partners, and the 3-dimensional echo system is unique in the region. The Group has 15 networked imaging workstations, including software for measurement of myocardial velocity (and derived indices), contrast echocardiography, 3D analysis and automated measurement of vascular structure and function. Data from hospital nuclear and MRI equipment can be imported using optical disk and additional software is available for each modality.

We have postgraduate students and staff from Australia and overseas. Our group offers research opportunities for Cardiology trainees (M.Phil or Ph.D), medical students (joint MB/PhD) and science graduates (Ph.D). Students are enrolled in the Department of Medicine and must meet appropriate admission criteria. Specific enquiries regarding postgraduate activities should be directed to Professor Tom Marwick (tmarwick@medicine.pa.uq.edu.au).

Staff
Professor T Marwick MBBS, PhD, FRACP, FACC, FESC
Brian Haluska RDMS, Research Officer
Rodel Leano BSc, Research Officer
Leanne Short BSc, Research Assistant
Colin Case MSc, P/T statistician and database supervisor

Current Research Activities

Quantification of echo techniques for detection of myocardial ischemia
Application of tissue doppler to interpretation of dobutamine echocardiography – studies on long axis cardiac function, contribution of hemodynamics to tissue Doppler findings, clinical application of systolic and diastolic function assessment. Some of these studies performed in collaboration with groups in Norway, Korea and Hong Kong

Development of anatomical M-mode as a quantitative tool for regional wall motion analysis
Application of myocardial backscatter as a quantitative tool for dobutamine echocardiography:
Influence of wall stress and left ventricular geometry on the accuracy of dobutamine stress echocardiography.

Early myocardial disease (diabetes, HT)
Identification of myocardial abnormalities in hypertensive and elderly patients with normal and abnormal LV filling: A study of tissue characterization and strain.
Echocardiographic detection of early diabetic myocardial disease.
Correlates of Subclinical Left Ventricular Dysfunction in ESRD.
Usefulness of myocardial tissue Doppler echocardiography to evaluate left ventricular dyssynchrony before and after biventricular pacing in patients with idiopathic dilated cardiomyopathy. Performed in collaboration with a group in Netherlands

High frequency ultrasound (abnormal vascular structure and function)
Assessment of arterial function and structure with in End Stage Renal Disease.
Development of a new automated edge-detection technique for measurement of brachial artery reactivity.
A randomized trial of aggressive lipid reduction for improvement of myocardial ischemia,
symptom status and vascular function in patients with coronary artery disease not amenable to intervention.

**New technologies in echocardiography**
Ongoing programs in myocardial perfusion using contrast echocardiography
Ongoing programs in 3D echocardiography (industry collaboration with USA and Germany)

**Myocardial viability**
Use of cyclic variation of integrated backscatter to assess contractile reserve and myocardial viability in chronic ischemic left ventricular dysfunction.
Effects of glucose, insulin and potassium infusion on chronic ischaemic left ventricular dysfunction.
Effects of revascularisation and contractile reserve on left ventricular remodelling in patients with impaired left ventricular function.

**Clinical decision-making**
Use of digital vs video interpretation of echocardiograms, tele-echocardiography.
Collaboration with Centre for Online Health
Prediction of mortality using dobutamine and exercise echocardiography, in patients with suspected coronary disease, diabetes and hypertension. Collaboration with centres in USA (Cleveland, Indianapolis, Asheville)
Risk assessment before major noncardiac surgery.

**Valvular heart disease**
Prediction of the development of LV dysfunction in asymptomatic patients with valvular regurgitation

**CLINICAL TRIALS**
Clinical Centres of Research Excellence – studies of cardiovascular effects of lifestyle and specific therapies for diabetes, hypertension, renal failure and obesity
Progression of CAD in end-stage renal failure
Importance of transmural distribution of scar to the diagnosis of myocardial viability
New techniques for quantitation of regional LV function
Echocardiographic and biochemical responses to anti-fibrotic therapy in LVH
Non-BP dependent adverse cardiovascular effects and genetic aspects of aldosterone excess.

**MULTICENTER STUDIES;**
NHMRC CTC: FIELD substudies on vascular structure and function (1999-)
Bristol-Myers Squibb – I-PRESERVE (2002-)
Boehringer-Ingelheim – ONTARGET study and MRI substudy co-investigator (2002-)
NIH – HAT (home automatic defibrillator) study.

**Financial Support**
$167,000 per annum National Health and Medical Research Foundation of Australia ($500,000 total 2000-2002). Eccles award
$63,333 per annum National Health and Medical Research Foundation of Australia ($190,000 total 2000-2002). Project grant Progression of CAD in end-stage renal failure.
$10,000, Princess Alexandra Hospital Research Foundation (2001). Effects of aggressive risk factor intervention on ischemia and vascular reactivity in endstage CAD (supplement to NHF).
$35,000 per annum, National Heart Foundation of Australia ($70,000 total 2001-2002). Effects of aggressive risk factor intervention on ischemia and vascular reactivity in endstage CAD.
$50,000 approximately, Bristol-Myers Squibb. OVERTURE study co-investigator (2000-).
$50,000 per annum National Heart Foundation of Australia ($100,000 total 2002-2004). Biochemical, structural and functional effects of treating fibrosis in hypertensive heart disease.
$50,000 per annum National Heart Foundation of Australia ($100,000 total 2002-2004). Non-BP dependent adverse cardiovascular effects and genetic aspects of aldosterone excess (co-PI).
$69,333 per annum National Health and Medical Research Foundation of Australia ($208,000 total 2002-2005). Project grant Development of quantitative tools for assessment of regional cardiac function by echocardiography.
$265,500, National Health and Medical Research Foundation of Australia (2002-2005). Project grant Importance of transmural distribution of viable myocardium to outcome after revascularization.
Bristol-Myers Squibb – I-PRESERVE study (2002-)
Boehringer-Ingelheim – ONTARGET study and MRI substudy co-investigator (2002-)


**Publications**

**JOURNAL**


Yuda S, Short L, Leano R, Marwick TH. Abnormal left ventricular filling with increasing age reflects abnormal myocardial characteristics independent of ischemia or hypertrophy. Am J Cardiol 2003;91:63-67.


ABSTRACTS PUBLISHED


Khoury VK, Haluska BA, Marwick TH. Effect of glucose, insulin and potassium on myocardial tissue velocity and tissue displacement after myocardial infarction. J. Am. Coll. Cardiol. 2002, 39(9): 269B.


Mottram PM, Yuda S, Leano RL, Marwick TH. Patients with a hypertensive response to stress have abnormalities of myocardial structure and function. J. Am. Coll. Cardiol. 2002, 39(9): 185B.


Yuda S, Marwick TH. Patients with coronary stenoses show abnormal regional strain and backscatter despite normal function. Eur Heart J 2002, 4(Suppl); 83.

Mottram PM, Yuda S, Leano R, Marwick TH. Patients with a hypertensive response to exercise have impaired systolic and diastolic function. Eur Heart J 2002, 4(Suppl); 274.


Yuda S, Khoury V, Marwick TH. Influence of left ventricular geometry, myocardial abnormalities and wall stress on the accuracy of dobutamine stress echocardiography. Eur Heart J 2002, 4(Suppl); 678.

Mottram PM, Haluska BA, Leano R, Yuda S, Marwick TH. Patients with a hypertensive response to exercise have impaired systolic function and reduced arterial compliance. Circulation 2002, 106(19); II-422.

Yuda S, Fang ZY, Marwick TH. Association of severe coronary stenosis with subclinical regional left ventricular dysfunction in the absence of myocardial infarction. Circulation 2002, 106(19); II-423.


BOOK CHAPTERS

ARTICLES ACCEPTED FOR PUBLICATION


Haluska BA, Short L, Marwick TH. Relationship of ventricular longitudinal function to contractile reserve in patients with mitral regurgitation. Am Heart J 2003 (in press)


Khoury VK, Haluska B, Fathi R, Marwick TH. Effects of revascularisation and contractile reserve
on left ventricular remodelling in patients with impaired left ventricular function. Int J Cardiol 2003 (in press)


Lectures and Presentations


“Echocardiography in ischemic heart diseases” (Plenary session); “Use of stress echo to predict death in diabetic patients” (abstract); Featured oral session – Stress Echo Innovations and progress (moderator). American College of Cardiology 49th Annual Scientific Session, Atlanta; March, 2002.

“Assessment of diastolic function in heart failure”. Queensland Heart Failure meeting. Noosa, April 2002


WCC organizing committee; echocardiography satellite (co-organizer); Ralph Reader prize (judge). “New echo technology” and “Imaging in LV dysfunction” (moderator); “Prognostic implications of exercise echo and exercise ECG in hypertensive patients”; “Quantitative echo determinants of LV function after revascularization”; “Use of stress echo to predict death in diabetic patients”; “Use of tissue Doppler to improve the prediction of events in patients with positive stress echo” (abstracts). World Congress of Cardiology, Sydney; May 2002

“Satellite symposium – New techniques for examining left ventricular function” (Organizer); “Prognostic implications of exercise echo”; “Myocardial hibernation – do we need to redefine it” (Plenary). American Society of Echocardiography, June 2002, Orlando, USA.

“Wanted dead or alive – Implications of viable myocardium and how to identify it”. South Australian Heart Failure meeting. Barossa, June 2002

“Coronary artery distribution and stress echocardiography”. Queensland DMU preparation course (Faculty) Wesley Hospital, Brisbane; June 2002

“Non-invasive tests of cardiac risk”. Annual Renal Symposium (Faculty) Noosa; July 2002


“Evaluation of cardiac diagnostic investigations as a model for application of clinical tests in trials”. Australasian Health and Research Data Managers scientific meeting (Faculty) Brisbane; August 2002

ASEANZ CV and Lipid Forum (Organizing committee), Melbourne, October 2002.

“Tissue Doppler with stress and dobutamine echo” Plenary and Moderator. Tissue Doppler Summit, Miami, October 2002

Post Graduate Students

Dr Peter Cain, PhD
Dr V Khoury, MPhil
Dr O Najos, MPhil
Dr Robert Fathi, PhD
Dr Ben Fang, PhD
Dr P Mottram, PhD
Dr C Nelson, MPhil
Mr N Smart, PhD
Dr S Moir, PhD
Dr L Hanekom, MPhil

Awards

P Cain
NHMRC scholarship 2000-2 "Use of myocardial Doppler velocity and strain velocity to enhance detection of CAD with stress echocardiography"

P Mottram
NHF scholarship 2002-5" Cardiac fibrosis and the Genesis of Diastolic Heart Failure"

Public Service Relevant to Research

T Marwick
Grant/promotions Reviewer
NHMRC discipline panel
Chair, NHF Research Committee
Committees
Scientific Committee, World Congress of Cardiology 2002
Echo guidelines committee, Cardiac Society of Aust NZ
Cardiovascular Health Advisory group, Natl Heart Foundation
Medicare Services Advisory Committee, Dept of Health and Aged Care
Cardiac Imaging group, Dept of Health and Aged Care
Chair, Southern Clinical School Research Committee
Health Sciences Faculty Research Committee
Editorial reviewer
Annals of Internal Medicine
American Journal of Cardiology
American Journal of Medicine
American Heart Journal, Editorial Board
Heart
Circulation

European Heart Journal
European Journal of Echocardiography, Editorial Board
Journal of the American College of Cardiology, Editorial Board
Journal of the American Medical Association
Journal of the American Society of Echocardiography, Editorial Board
Internal Medicine Journal
Korean Journal of Cardiovascular Disease Editorial Board
Annual Scientific sessions reviewer
American College of Cardiology
American Heart Association
American Society of Echocardiography
American Heart Association
Cardiac Society of Australia & NZ
Hypertension Unit

The Princess Alexandra Hospital Hypertension Unit (PAHHU) offers a comprehensive diagnostic and management service for patients with all forms of hypertension, and is actively involved in clinical research into the pathogenesis and management of hypertensive conditions. Patients referred to the Unit undergo a thorough assessment in order to confirm the diagnosis of hypertension and to determine the severity of the condition, and a detailed search is undertaken in order to look for specifically treatable or curable forms. The Unit uses state-of-the-art approaches to both non-drug and drug treatment of hypertension, involving the services of the Queensland Hypertension Association/Salt-Skip Program, and the use of the best available antihypertensive medications. Close liaison with experienced specialists in adrenal and renovascular surgery, interventional radiology, nephrology and vascular medicine, by way of regular group discussions at Renovascular and Adrenal Venous Sampling Meetings, facilitates optimal management approaches for patients with potentially curable forms of hypertension.

In close collaboration with the Hypertension Unit at Greenslopes Hospital (GHHU, where the Director of PAHHU holds the position of Research Director) the PAHHU conducts internationally recognised clinical research into the pathogenesis and management of hypertension, and especially of endocrine forms. The Unit is considered a world authority on primary aldosteronism (PAL), a specifically treatable and potentially curable form of hypertension, and has made major contributions to the understanding of its pathogenesis (including genetic basis), prevalence and accurate diagnostic workup. This has led to frequent invitations to speak at national and international meetings, contribute reviews to major journals and collaborate with national and international research groups in areas relating to aldosterone, PAL and other salt-dependent forms of hypertension.

As a Senior Lecturer within the University of Queensland Department of Medicine, the Director of the PAHHU is actively involved in the teaching of medical students from all years of training within the University of Queensland (UQ) School of Medicine.

STAFF
Dr Michael Stowasser PhD, FRACP, MBBS - Director, Hypertension Unit and Senior Lecturer, University Department of Medicine
Diane Cowley BN, MPH, MHAIS, Hypertension Nurse

RESEARCH OFFICER
Martin Elphinstone BSc (Hon)

RESEARCH ASSISTANT
Thanuja Gunasekera, BSc (Hon)

Current Research Activities

CLINICAL TRIALS
A prospective, multinational, multicentre, double blind, randomized, active-controlled trial in patients with essential hypertension to compare the effects of valsartan 80 and 160mg, with or without the addition of hydrocholothiazide, once daily to that ofamlodipine 5 and 10mg once daily, with or without the addition of hydrocholothiazide, on cardiovascular morbidity and mortality (VALUE 405 Trial).

Double-blind, randomised, active-controlled comparison study of the antihypertensive effect of eplerenone versus amlodipine in patients with elevated systolic blood pressure.

Double-blind, randomised, placebo-controlled, parallel group, multicenter, flexible dose study to evaluate the efficacy and safety of Viagra (sildenafil citrate) in males with erectile dysfunction and arterial hypertension who are taking multiple anti-hypertensive agents.

OTHER RESEARCH
Genetics of familial hyperaldosteronism type II.

Genetic studies into familial hyperaldosteronism type I.

Non-BP dependent adverse cardiovascular effects and genetic aspects of aldosterone excess (in collaboration with T Marwick, University of Queensland Department of Medicine).

Effects of renin angiotensin system blockade on the progression of hepatic fibrosis (in collaboration with J Jonsson and E Powell, University of Queensland Department of Surgery).

Establishment of a Clinical Centre of Research Excellence in Cardiovascular Disease and...
Metabolic Disorders. National Health and Medical Research Council of Australia (in collaboration with T Marwick, J Prins, J Shaw, D Johnson, E Beller and J Coombes, University of Queensland).

Steroid metabolism and aldosterone synthase gene polymorphisms in primary aldosteronism (in collaboration with Dr Eleanor Davies, Western Infirmary, Glasgow, Scotland).

Genetics of Gordon’s syndrome (in collaboration with Dr Kevin O'Shaughnessy, Department of Clinical Pharmacology, Cambridge University, Cambridge, UK).

Genetic and therapeutic aspects of familial forms of primary aldosteronism (various aspects of this work have been completed while others are ongoing).

Prevalence of primary aldosteronism (a multicentre, multinational study performed in collaboration with Dr Paulo Mulatero, Division of Endocrinology, University of Padova, Italy).

Linkage studies at the chromosome 7p22 locus in a South American family with FH-II (in collaboration with Professor Maria I. New, New York Hospital Cornell Medical Center, Department of Paediatrics New York, USA).

Financial Support
$10,000 Princess Alexandra Hospital Foundation. Genetic studies into familial forms of hypertension. (Stowasser M)

$49,967, National Heart Foundation. Non-BP dependent adverse cardiovascular effects and genetic aspects of aldosterone excess. (Stowasser M, Marwick T, Gordon R)

$50,000, National Heart Foundation. Biochemical, structural and functional effects of treating fibrosis in hypertensive heart disease. (Marwick T, Stowasser M, Yuda S)

$36,000, Mayne Bequest Fund. Effects of renin angiotensin system blockade on the progression of hepatic fibrosis. (Jonsson J, Powell E, Clouston A, Stowasser M)

Planning stage, National Health and Medical Research Council. Establishment of a Clinical Centre of Research Excellence in Cardiovascular Disease and Metabolic Disorders, (Marwick T, Prins J, Shaw J, Stowasser M, Johnson D, Beller E, Coombes J)

OTHER SUPPORT
Irene Hunt Hypertension Research Fund - established in 2000 following a bequest of approximately $1.3 million by a grateful patient of the GHHU to be used to fund Professor Gordon's hypertension research and administered at his request by Dr Michael Stowasser. The Fund generates approximately $50,000 per year and is used to support a medical graduate pursuing a higher degree in hypertension research

Publications

JOURNAL ARTICLES PUBLISHED


Lectures and Presentations

Dr Stowasser
Invited Presentations - International
Eplerenone - is it really better than spironolactone? 17th Annual Scientific Meeting of the American Society of Hypertension, New York, May 2002.


Mineralocorticoid forms of hypertension. Annual Scientific Meeting of the Hong Kong College of Physicians, Hong Kong, October 2002.

Invited Presentations (Dr Stowasser) - National


Primary aldosteronism - learning from the study of familial forms. University Department of Medicine Symposium, University of Western Australia, Perth, September 2002.

**Invited Presentations Local**
Primary aldosteronism at Princess Alexandra Hospital: correcting Kaplan. 8th Pfizer Queensland Physician's Meeting, Gold Coast, February 2002.

Primary aldosteronism - under-recognized or over-diagnosed? Princess Alexandra Hospital Week, Brisbane, July 2002.


**Oral Presentations at National and International Scientific Meetings (Competitive by Submission of Abstracts)**
Stowasser M. Primary aldosteronism: from genesis to genetics. 28th International Aldosterone Conference, San Francisco, June 2002.

**Poster Presentations at National and International Scientific Meetings (Competitive by Submission of Abstracts)**

**Post Graduate Students**
Dr Andrew Bofinger, PhD, Minor criticisms addressed - awaiting final decision by Dean of PGRS

Robin Armstrong, Masters, Progressing well
Dr Paul Klaassen, Masters, Candidate withdrew for personal reasons

**Awards**
Dr Stowasser
Robert Vandongen Memorial Lecturer, Royal Perth Hospital, 2002

**Public Service Relevant to Research**

Dr Michael Stowasser
Secretary, Executive Committee of the High Blood Pressure Research Council of Australia (since Dec 2001; Member of the Executive Committee since 1998)

Member, Blood Pressure Advisory Committee for the NHF

Member, Editorial Board for Clinical and Experimental Physiology and Pharmacology

Member, International Society of Hypertension

Member, Veterans' Research Foundation Research Committee, Greenslopes Hospital

President, Queensland Hypertension Association

Member, Regional Grant Interview Committee, National Heart Foundation

Member, Judging Panel for the Foundation for High Blood Pressure Research Fellowship

Awards

Written Grant Application Reviewer, National Health and Medical Research Council of Australia

Metabolic Research Unit

The research aims of the Metabolic Research Unit (MRU) are to explore the pathophysiological effects of the Growth Hormone (GH) and Insulin-like growth factor (IGF) systems in human health and disease. Specifically targeted areas include patients with GH deficiency, patients with cirrhosis, and normal ageing individuals. The role of GH in effecting homeostatic responses during acute exercise has been the focus for a recent NHMRC Project grant. Collaborative work has continued on developing a test for GH abuse in elite athletes.

Clinical work includes support for General Endocrine, Thyroid Nuclear Scan, Combined Pituitary and Combined Endocrine Surgical Clinics. Staff are engaged in Chairing a Steering Committee to develop an Australian and New Zealand Acromegaly Registry (ANZAR) to assess factors determining treatment outcomes in this uncommon disorder. Additional clinical research projects are examining the efficacy of venous sampling in the diagnosis of ACTH-dependent Cushing’s syndrome and recurrent hyperparathyroidism, and in overnight Metyrapone testing of suspected ACTH deficiency.

Staff

SENIOR STAFF
Associate Professor Ross Cuneo
Jennifer Wallace

RESEARCH STAFF
Edward Pratt
Carmen McNaught
Nicole Pelton
Francis Thomas
Anh Tran

Current Research Activities

CLINICAL TRIALS
NHMRC Project Grant: Regulation and Effects of the Growth Hormone, IGF-I and IGF-Binding Protein Responses to Acute Exercise.

A randomised, open label, multicentre study comparing the efficacy and safety of medical treatment with Sandostatin LAR with that of surgical therapy in newly diagnosed acromegalic patients with microadenomas and macroadenomas.

OTHER RESEARCH
Development of a model of thermal homeostasis of the exercising human body with variations in body composition and sweating capabilities; collaboration with Chemical Engineering, University of Queensland.

Cardiac failure in a patient with anthracycline induced cardiomyopathy and Growth Hormone Deficiency responding to human Growth Hormone replacement; collaboration with DR Deborah Meyers of the Queensland Heart Transplantation Service, Prince Charles Hospital.

Parathyroid venous sampling; a tertiary referral centre’s experience; collaboration with Endocrine, Surgical and Radiology Departments, Princess Alexandra Hospital.

Comparison of diagnostic tests for ACTH deficiency in patients with pituitary disorders: Overnight Metyrapone and Synacthen tests.

Assessment of the effects of endurance and resistance training on the GH and IGF-I responses to acute exercise in elderly males; collaboration with Griffith University, Gold Coast.

Growth Hormone treatment in adults with cirrhosis completed 2002; collaboration with researchers in Queensland, New South Wales and Western Australia, and New Zealand.

Assessment of the effects of acute exercise alone and acute exercise combined with supra-physiological Growth Hormone treatment of athletic males on the GH and IGF axis, intermediary metabolism, markers of bone turnover, and on molecular isoforms of GH: Studies with GH-2000 scientific from UK, Denmark, Sweden, Italy, Germany and Australia.

Financial Support

$8,000 Pharmacia (Australia) Pty. Ltd. Study 2: To assess the independent effects of differing GH and IGF states on homeostatic responses to acute exercise. (Associate Professor R Cuneo, J Wallace)
$60000 Novartis Pharmaceuticals Australia P/L. Australia and New Zealand Acromegaly Tumour Register. (Associate Professor. R Cuneo)

$145,662, NHMRC. Regulation and effect of the growth hormone, IGF-I, and IGF-Binding protein response to acute exercise. (Associate Professor. R Cuneo, J Wallace)

$600 Donations. (A/Professor. R Cuneo)

$10,000 Novo Nordisk. Acromegaly Conference Funds. (Associate Professor. R Cuneo)

$30,000 Novartis. Acromegaly Trial – Clinical Nurse salary. (Associate Professor. R Cuneo)

$5,000 Princess Alexandra Hospital Foundation. Effects of resistance and endurance training on the GH, IGF and testosterone axes in elderly males, Griffith University. (Associate Professor. R Cuneo)

Publications


ABSTRACTS PUBLISHED


Lectures and Presentations

R Cuneo

Post Graduate Students

Jennifer Wallace, PhD
Winsome Abbott-Johnson, PhD
Ahn Tran, Batchelor of Chemical Engineering (Hons)

Public Service Relevant to Research

Associate Professor R Cuneo (Committees)
Departmental rep to Princess Alexandra Hospital Library Management Committee 1999-2002
Advisory Group to develop strategies for the Australian Centre for Excellence in Male Reproductive Health:
Chairman, Steering Committee, Australian & New Zealand Acromegaly Registry (ANZAR)
Chairman, Local Organising Committee, Growth Hormone Research Society and International Society for Research in Insulin-like Growth Factors 2nd Joint Symposium, Cairns, Australia, 2004

Associate Professor R Cuneo (Reviewer)
Endocrinology and Metabolism 1994-
Clinical Endocrinology 1992-
Journal of Endocrinological Investigation 1995-
Endocrine Reviews 1993-
Growth Hormone and IGF Research 1998-
Aust NZ J Medicine 1998-
Proceedings National Academy of Science 1999-
European J Endocrinology 1999-
Journal of Clinical Endocrinology & Metabolism 1999-
American Journal of Physiology 2000-

Jennifer Wallace LOC Member.
Endocrine Society of Australia’s Council: Honorary Secretary 2002
Editorial Board Member:
Journal of Clinical Endocrinology & Metabolism
Growth Hormone and IGF Research

Jennifer Wallace (Reviewer)
Clinical Endocrinology 1992-
Journal of Endocrinological Investigation 1995-
European J Endocrinology
Journal of Clinical Endocrinology & Metabolism
Medicine and Science in Sport

Community Support:
Aust Pituitary Foundation lecture: medical management of pituitary tumours; Pituitary Awareness Week 2001 & 2002
Therapeutics Research Unit

The Therapeutics Research Unit is concerned with pharmacological strategies that may improve patient outcomes. The Unit’s work has been at all levels of therapeutic research, namely: drug design, drug delivery, pharmacokinetics and quality use of medicines and natural products for a range of diseases and for patients in both institutions and at home. The work in drug design has concentrated on making a better aspirin for use in the prevention of stroke and heart attacks. Drug delivery research has focused on use absorption of drugs across the skin for either a local or systemic effect. The emphasis in pharmacokinetics has been on drug selection and appropriate dosing of patients with various types of liver disease.

The Unit’s quality use of medicines research has focused on three areas: the Quality Care in Pharmacy Program, understanding which patients will most benefit from the use of a drug dose administration aid and wound care service quality. Researchers have also worked actively with the Royal Women’s Hospital in using pH-modulating drugs as novel therapies for neuroprotection in hypoxia.ischemia in the newborn.

**Staff**

Professor MS Roberts (Professor and NHMRC Senior Principal Research Fellow)
Dr. S.E. Cross (NHMRC Senior Research Officer)
Dr. M. Whitehouse (Honorary Research Fellow)
Ms P. Cheng (PhD student)
Dr. B. Muller (Post-doctoral Researcher)
Dr. G. Winckle (Post-doctoral Researcher)
Dr. P. Masce (Technical/Professional Officer)
Ms. J Stokes (Research Officer)
Dr. Y. Anissimov (NHMRC Research Officer)
Dr. B. Magnusson (Pfizer Post-doctoral Researcher)
Dr. K. Foster (Lions Post-doctoral Researcher)
Mr. C. Hayden (Research Officer)
Ms Lene Sorrenson (PhD student)
Ms M. Di Ianni (Administration Officer)
Ms. C. Ientile (Postgraduate Officer)
Mrs. N. Walker (Secretary)
Ms J Lee (Administration)
Ms. A. Jensen (Administration)
Ms. K. Hore (Administration)
Mr. J. See (Administration)
Mr. M. Korst (Administration)
Mrs. P. Letherbarrow (Administration)
Ms. T. Tebbutt (Administration)
Mr. J. Lesley (Administration)
Mr. S. Richter (Administration)
Mrs. A. Mactaggart (Administration)
Ms. Sheung-Yi Yuen (Research Assistant)
Mr. Brett McWhinney (Research Assistant)

**Research**

**MAIN AREAS OF RESEARCH**

- Dose administration aids trial
- National Evaluation of Quality Care Pharmacy Program.
- Targeted drug delivery by topical application
- Extracellular acidosis and pH-modulating drugs as novel therapies for neuroprotection in hypoxia.ischemia in the newborn
- Iron metabolism and the cirrhotic liver: studies on iron absorption and hepatic iron kinetics.
- Single pass whole body and isolated organ perfusion: New insights into determinants of pharmacokinetics and pharmacodynamics
- Predicting of drug structure determinants of percutaneous absorption
- Development of anti-thrombotic medications

Factors precipitating/amplifying arthritis

Benchmarks for certifying Traditional Medicines for arthritis, asthma and inflammatory bowel disease.

**Financial Support**

**CURRENTLY HELD GRANTS**

$34,446, 2002 UQ Research Development Scheme. Single pass whole body and isolated organ perfusion: New insights into pharmacokinetics and pharmacodynamics. (Professor M Roberts, Principal Investigator)

$69,732; Wellcome Trust. Equipment for Biomedical Research (062332). NMR. (with Istvan Toth, Maree Smith, Richard Prankerd), (Professor M Roberts Principal Investigator)

$132,813, Pfizer (UK). Predicting of drug structure determinants of percutaneous absorption. (Professor M Roberts Principal Investigator)

$100,000, University of Queensland. 1 22 2213 34 000 (ESEG and Mayne Bequest) Liver
pharmacokinetics. (Professor M Roberts Principal Investigator)

$75,000, Pharmacy Guild of Australia. Wound care benchmarking in community pharmacy – Piloting a method of QA indicator development. (with J Stokes, S Cross, J Chapman, G Duncan, Ms Julie Stokes, Principal Investigator)

$190,00, NHMRC (#142914). Targeted drug delivery by topical application. (sole chief investigator - Professor M Roberts Principal Investigator)

$105,967, NHMRC Research Fellowship. (Professor M Roberts Principal Investigator)

$150,00 per year, NHMRC. (#210156) Extracellular acidosis and pH-modulating drugs as novel therapies for neuroprotection in hypoxia-ischemia in the newborn (with Professors P Colditz and P Gluckman, Dr C Burke, Professor M Roberts - Principal Investigator)

$85,000 per year, NHMRC. (#210259) Iron metabolism and the cirrhotic liver: studies on iron absorption and hepatic iron kinetics. (with Associate Professor D Crawford, Dr L Fletcher, Professor L Powell, Professor M Roberts - Principal Investigator)

Princess Alexandra Hospital Foundation. Michael Whitehouse, Principal Investigator

Publications

JOURNAL


ABSTRACTS PUBLISHED

Anissimov YG, Roberts MS. The effect of slow equilibration on transdermal absorption, Perspectives in Percutaneous Penetration Conference, France, April 2002

Cross SE, Anissimov YG, Roberts MS. The use of BSA solution for receptor phase to predict transdermal absorption parameters for highly lipophilic drugs, Perspectives in Percutaneous Penetration Conference, France, April 2002

Pugh WJ, Rosado C, Cross SE, Roberts MS, Hadgraft. Effect of solvent pre-treatment on Epidermal Flux, Perspectives in Percutaneous Penetration Conference, France, April 2002


Whitehouse MW, Butters DE. Some difficulties for currently gaining acceptance of natural products and traditional medicines. Abstract from

86 Annual Research Review 2002
an Oral presentation. Australian Centre for Complementary Medicine Inaugural Meeting, Customs House, Brisbane, March 2002.

**BOOK CHAPTERS**


**ARTICLES ACCEPTED FOR PUBLICATION**

Cross SE, Thompson MJ & Roberts MS. Transdermal penetration of vasoconstrictors: Present Understanding of the Human Epidermal Flux and Retention of Free Bases and Effect of Ion-pairing. Pharm Res 02-0219 Accepted for publication September 26, 2002


**Lectures and Presentations**

Roberts MS. Invited lecturer – GPEN (Globalisation of Pharmaceutics Network) Course on Dermal/Transdermal delivery Structure/permeability relationship of drugs for the skin Ann Arbor, Michigan US Nov 6-8, 2002

Roberts MS. Invited lecturer – GPEN (Globalisation of Pharmaceutics Network) Course on Dermal/Transdermal delivery Cutaneous pharmacokinetics and bioavailability (Modelling, methodology). Ann Arbor, Michigan US Nov 6-8, 2002

Roberts MS. Invited lecturer – PPP pre conference course on “Skin Structure and Function” at Perspectives in Percutaneous Penetration, Antibes Juan-les-Pins, France April 2-5, 2002

Roberts MS. Key Note Speaker. Pharmaceutical Society of Australia (Qld) Annual Awards Evening. April 24, 2002

Roberts MS. Pharmacokinetic Implications of Hepatic Transporter Events. ASCEPT Annual Meeting Dunedin, December 2002

Roberts MS. Frontiers in PKPD Pre-meeting workshop ASCEPT Annual Meeting Dunedin, December 2002

Roberts MS. Topical discussion on “Risk Assessment in Pesticide Permeation: Is it reliable?” at Perspectives in Percutaneous Penetration, Antibes Juan-les-Pins, France April 2-5, 2002 (with J Heylings)


Whitehouse MW, Butters DE, Davis CKC. Anti-Inflammatory activities of celery seed, mussel powder, emu oil and ginger extracts: The problem of poor/no quality controls. Poster presented at the Australian Centre for Complementary Medicine, Inaugural Meeting, Customs House, Brisbane, March, 2002.

**Post Graduate Students**

Brett MacFarlane, PhD, in progress

Cameron Hayden, PhD, completed,

Gerhard Siebert, PhD, in progress

John Chapman, PhD, in progress

Julie Stokes, PhD, in progress

Karen Peachy, PhD, in progress

Ken Newton, PhD, in progress

Lene Sorensen, PhD, completed,

Michelle King, PhD, in progress

Ping Cheng, PhD, completed,

Robert Pennisi, Masters, in progress

Young Mo, PhD, in progress

**Awards**

Professor MS Roberts

HMRC Fellow Support Enhancement Award 2002

Dr MW Whitehouse

Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists Life Membership 2002

**Public Service Relevant to Research**

Key Note Speaker. Pharmaceutical Society of Australia (Queensland) Annual Awards Evening. April 24, 2002

Pharmacokinetic Implications of Hepatic Transporter Events. ASCEPT Annual Meeting Dunedin, December 2002

Frontiers in PKPD Pre-meeting workshop ASCEPT Annual Meeting Dunedin, December 2002

Topical discussion on “Risk Assessment in Pesticide Permeation: Is it reliable?” Perspectives
in Percutaneous Penetration, Antibes Juan-les-Pins, France April 2-5, 2002 (with J Heylings)

Invited lecturer – PPP pre conference course on “Skin Structure and Function” at Perspectives in Percutaneous Penetration, Antibes Juan-les-Pins, France April 2-5, 2002

Presentations to Lions Medical Research Foundation on Sunday mornings in February (Miss Personality) and in July (Board of Governors) every year since 1989 as a speaker on our research achievement
Nursing Education and Research Unit

The Nursing Education and Research Unit (NERU) established in 2001 provides expert research and education training, analysis and advice across the Southern Zone of Queensland Health. NERU promotes evidence-based practice, the ethical conduct of research, and risk management and assessment in relation to research. NERU staff has provided intensive assistance to clinicians throughout the Southern Zone to assist them develop proposals, submit conference abstracts and publish research findings. NERU’s policy is to work with the client at the beginning level and then try to link them with a visiting scholar or a multi disciplinary team in order to progress the research to its fullest possibility. A full service in assisting with applications to the Research Ethics Committee is also provided.

Staff
Dr Sarah Winch, Nursing Director of Research and Adjunct Research Fellow School of Population Health, University of Queensland (UQ)
Dr Amanda Henderson, Nursing Director Education and Visiting Scholar School of Nursing (QUT)
Ms Kerri Holzhauser, Clinical Nurse Consultant Research
Ms Alison Heel, Staff Development Educator Clinical Placements and Risk Management

Current Research Activities
Promoting Research Utilisation: an Intervention Study (Other team members Professor Debra Creedy, Associate Professor Wendy Chaboyer)
Project Summary: Although clinical effectiveness requires nurses to base decision-making on the best available evidence, there are low levels of research utilisation in practice. Underpinned by the Theory of Planned Action, this study will evaluate the effectiveness of a change strategy to promote best practice in a large tertiary hospital using a pre-post intervention design. Baseline knowledge and attitudes will be identified and an audit of a common clinical practice (application and monitoring of thrombolytic embolus prevention stockings) undertaken prior to the implementation of the change strategy on Ward A. Ward B will act as a control. A post-intervention survey and chart audit will measure changes.

The Change to One Queensland Hospital During the Application for “Magnet” Recognition.
Project Summary: Magnet hospitals have been consistently recognised as health care facilities that contain a good environment to work in and great quality patient care. This study aims to learn more about the environment that nurses work in, what changes in the environment occur during the hospital’s application for Magnet Recognition and how these changes affect patients.

Financial Support
Promoting Research Utilisation: an Intervention Study
Funding: $25,000, Griffith University Development Grant 2002

Publications

Lectures and Presentations
Dr S Winch
Oct 2002: Queensland Annual Carer’s Forum ‘Discharge Planning’
Sept 2002: Queensland Emergency Nurses Conference ‘Getting Evidence into Practice’

Public Service Relevant to Research
Dr Sarah Winch:
Nursing reference group member National Institute of Clinical Studies.
Ethics committee member Princess Alexandra Hospital Research Ethics Committee.
Clinical Services Evaluation Unit, Princess Alexandra Hospital, board member.
Theses Appraisal for Griffith University, QUT and University of Queensland (1 Honour and 3 Masters)
Conference Development: Professor Phillip Darbyshire, ‘Making Focussed Research Happen’. 240 participants

*Mrs Kerri Holzhauser; Australian Emergency Nursing Journal Editorial Board.*

Conference Development: Professor Phillip Darbyshire, ‘Making Focussed Research Happen’. 240 participants

Nursing - Intensive Care Unit, Division of Surgery

The department’s mission is to become a leading clinical research centre for critical care nursing in Australia. Clinical research is promoted and conducted in the department to improve patient outcomes and promote excellence in critical care nursing practice and to foster a research culture which provides opportunities for clinicians to achieve personal and professional development goals.

A collaborative model of research has been developed and successfully employed. Key elements of the model include a dedicated nursing research position, the use of visiting scholars, a programmed approach to research and the establishment and maintenance of collaborative relationships.

Two programs of research are currently active. The first and most advanced is a program examining the use of graduated compression stockings in the critically ill. The second program is examining sleep and strategies to improve the quality of sleep in the critically ill.

Staff
Anthony Limpus, Clinical Research Coordinator

VISITING SCHOLARS
Associate Professor Wendy Chaboyer
Dr Chris Purcell

Current Research Activities
Assessment of Noise within the Department of Intensive Care at the Princess Alexandra Hospital

Financial Support
GRANTS
$9,300 Princess Alexandra Hospital Foundation

Publications

ABSTRACTS PUBLISHED

ARTICLES ACCEPTED FOR PUBLICATION

Lectures and Presentations
Limpus A, Chaboyer W. Undertaking Clinical Research. A Collaborative Model that is Working! Poster presentation at 2nd Queensland Health & Medical Scientific Meeting; December 2002; Brisbane, QLD.
Griffiths C, Coyer F, Theobold K. Comparing ICU Relatives’ Actual Needs with ICU Nurses’ Perceptions of Relatives Needs Oral/Poster presentation at ANZICS/ACCCN 27th Annual Scientific Meeting; October 2002; Perth WA.
Kenny R, Leditschke A. Organisational Aspects of Resuscitation Teams in South-East Queensland Hospitals Poster presentation at ANZICS/ACCCN 27th Annual Scientific Meeting; October 2002; Perth WA.
Kenny R, Leditschke A. Queensland Health’s Transition to Intensive Care Nurse Education Program (QHTICNEP): The Logan Experience Poster presentation at ANZICS/ACCCN 27th Annual Scientific Meeting; October 2002; Perth WA.
Limpus A, Chaboyer W. The Use of Graduated Compression Stockings in Australian Intensive Care Units – A National Audit Oral/Poster presentation at ANZICS/ACCCN 27th Annual Scientific Meeting; October 2002; Perth WA.


Limpus A, Chaboyer W. Undertaking Clinical Research. A Collaborative Model that is Working! Poster presentation at ANZICS/ACCCN 27th Annual Scientific Meeting; October 2002; Perth WA.


Limpus A, Chaboyer W. Undertaking Clinical Research. A Collaborative Model that is Working! Oral presentation at 13th International Nursing Research Congress; July 2002; Brisbane, QLD.


Wetzig S. Online Education: A Positive Contributor to the Achievement of Advanced Practice Standards. Oral presentation at 42nd Annual Princess Alexandra Hospital Week Scientific Meeting; July 2002; Brisbane, QLD.

Limpus A, Chaboyer W. Undertaking Clinical Research. A Collaborative Model that is Working! Oral presentation at Gold Coast Hospital Research Seminar Series; July 2002; Gold Coast, QLD.


**Post Graduate Students**

**Masters of Nursing**
Carolyn Griffiths, (Intensive Care)
Cheryl Buschel, (Critical Care)
Robyn Symonds, (Critical Care)

**Graduate Diploma Nursing**
Leanne Jack, (Intensive Care)
Robyn Maine, (Intensive Care)

**Graduate Certificate**
Andrea Wilson, (Critical Care)
Barbara Lake, (Critical Care)
Brett O’Gorman, (Intensive Care)
Chris Inglis, (Intensive Care)
Danielle Griffiths, (Intensive Care)
Jenny Anlezark, (Intensive Care)
Katrina Valks, (Intensive Care)
Suzane-Marie Predl, (Intensive Care)

**Awards to Staff Members**

**Public Service Relevant to Research**
Anthony Limpus
Member, Nursing Education & Research Advisory Group.
Division of Surgery
Cardiothoracic Surgery Department

The Cardiothoracic Surgery Department is a tertiary referral unit that provides a comprehensive adult cardiothoracic service to the Southern Area Health District. The Department is accredited with the Royal Australasian College of Surgeons (RACS) for advanced training.

Staff
Dr Julie Mundy, Director
Dr Christopher Smith, Consultant Cardiac Surgeon
Dr Terrence Mau, Visiting Cardiac Surgeon
Dr Kevin Matar, Visiting Thoracic Surgeon

Current Research Activities

CLINICAL TRIALS
EXPEDITION Trial - A double-blind, placebo-controlled, multinational trial to investigate the effect of intravenous treatment with the Na/H exchange inhibitor CARIPORIDE (HOE642) on all-cause mortality and non-fatal myocardial infarction in patients at risk of myocardial necrosis during and after coronary bypass.

Assessment of Latent Left Ventricular Dysfunction in Asymptomatic Severe Valvular Regurgitation. (Dr S.Wahi, Professor T.Marwick, Dr C.Smith, Dr J.Mundy)

Public Service Relevant to Research

Dr J. Mundy
Grant Application Reviewer NHMRC
Member, Blood Transfusion Improvement Collaborative Meeting, Sydney 2002

Dr. C.Smith
Grant Application Reviewer National Heart Foundation

Financial Support

$213,592 Aventis EXPEDITION trial Dr C.D. Smith, Dr J.A. Mundy, Dr T. Mau

Publications


ABSTRACTS PUBLISHED

BOOK CHAPTERS

Lectures and Presentations

Smith CD. Just Say NO – Inhaled nitric oxide (N0) in Adult Cardiac Surgery. Scientific Symposium 42nd Annual PA Week, Brisbane July 2002

Hart G. The Bad Left Ventricle – Is CABG too big a hurdle? Scientific Symposium 42nd Annual PA Week July 2002


Awards to Staff Members

Dr Graeme Hart
Best Registrar Paper Advanced Cardiothoracic Surgery Trainee - Scientific Symposium 42nd Annual PA Week July 2002
Colorectal Unit

The Colorectal Unit at the Princess Alexandra Hospital was formed in 1990 and aims to provide a comprehensive adult colorectal service to the Southern Area Health District. The Unit receives elective, urgent and emergency referrals. The consultant surgical staff provide a continuous on call service supported by junior surgical staff. The clinical focus is on difficult colorectal problems such as rectal cancer, complicated inflammatory bowel disease and complex perianal problems. An audit is conducted monthly relating to wound infection, thrombo-embolic disease, anastomotic leaks and mortalities on the Unit. Rates in all of these areas are very comparable with data from other major centres. The Colorectal Project has been collecting data on colonic and rectal cancer cases handled through the Unit for twenty-five years. This extensive database has produced much of the Unit's research output during the past decade, and continues to do so now with clinical studies underway on perforated colorectal cancers, large bowel obstruction, enterovesical fistulas and colorectal trauma.

Current registrar topics include retrospective studies on the influence of perforation of colorectal carcinoma on outcome, enterovesical fistula and carcinoid tumours treated at the hospital, and an update of the previously published study on iatrogenic colorectal trauma at Princess Alexandra Hospital, Royal Brisbane and the Mater Hospital. The results of stapled haemorrhoidectomy at Princess Alexandra Hospital are under investigation, and a prospective study comparing short and long course radiotherapy given preoperatively for rectal cancer is also underway in conjunction with the Department of Radiotherapy. The Unit plays an active role in graduate and postgraduate teaching at all levels in the hospital. The major thrust at the graduate level is with the third year medical students who spend five terms, each of six weeks, at the hospital in General Surgery. They are tutored by, and receive seminars and lectures from consultants on the Unit every week. The Unit also participates in, and coordinates the clinical training of the general surgical registrars at the hospital.

Staff
Dr Jon Cohen
Dr David Theile
Dr Brian Miller
Dr David Schache
Jodi Cooper, NPC
Cathy Bent, CSC
RESEARCH ASSISTANT
Julie Didrick

Current Research Activities
CLINICAL TRIALS
Prospective trial of short course versus long course preoperative radiotherapy in low rectal cancers (In collaboration with Radiotherapy)
Results of Treatment of Acute Malignant Obstruction of the Large Bowel.

OTHER
A Comparative Study of Surgical Knowledge Base in University of Queensland Medical Students
General Surgical Lists and Reminders. 5th Edition.
Recent Trends in Management of Colorectal trauma.
Management and Outcome of Enterovesical Fistula at Princess Alexandra Hospital.
Perforation in Colorectal Cancer: Does It Make Matters Worse?

Financial Support
Tyco, and Johnson & Johnson: Ongoing financial support for Colorectal Project Research Assistant.
Johnson and Johnson $6000 for 5th Edition of “General Surgical Lists and Reminders” Dr Brian Miller.

Publications
ARTICLES ACCEPTED FOR PUBLICATION
Miller BJ, Cohen JR “Metachronous Adenocarcinoma in Colonic J-Pouch” accepted by the Journal of Gastroenterology and Hepatology.

Lectures and Presentations
Dr Brian Miller

Jodi Cooper
“The Role of Surgery in Palliative Care”.
“Surgery as a Cancer Treatment Modality”.
Breast and Endocrine Department

Staff
Dr Neil Wetzig
Dr Ian Bennett
Dr Petar Vujovic

Current Research Activities

CLINICAL TRIALS
RACS SNAC Trial: Co-Chair and Principal Investigator RACS SNAC Trial Management committee. A multicentred national randomized controlled trial of Sentinel Node Biopsy versus Axillary Clearance in the management of Breast Cancer. This trial is the first such clinical trial conducted by surgeons treating breast cancer in Australia and my role was instrumental in establishment of the trial.

Publications
JOURNAL
Lee A H S, Denley H E, Pinder S E, Ellis I O, Elston C W, Vujovic P, MacMillan R D, Evans A J. Excision biopsy findings in patients with breast needle core biopsies reported as suspicious of malignancy (B4) or lesion of uncertain malignant potential (B3). Awaiting publication.

ABSTRACTS WHICH HAVE BEEN PUBLISHED

Lectures and Presentations
Neil Wetzig
Royal Australasian College of Radiologists Breast Imaging Group Annual Meeting, Noosa, Qld, September 2002. FNA and Core Biopsy in Australia.


Ian Bennet


Petar Vujovic


Public Service Relevant to Research

Neil Wetzig
RACS Representative, National Advisory Committee, Breast Screen Australia.
RACS Representative, Quality Management Committee, Breast Screen Queensland
Immediate Past Chairman and Current Executive Member, Section of Breast Surgery, Royal Australasian College of Surgeons.
Co-Chair RAC SNAC Trial Management Committee.
Member National Breast Cancer Centre Clinical Guidelines Advisory Group.
Working Party Member National Breast Cancer Centre Guidelines for Management of DCIS and FNA/Core Biopsy

Board Member, General Surgery, Australia
Member, Australian Medical Association
Member, Clinical Oncological Society of Australia
Member, Australian and New Zealand Breast Cancer Trials Group
Member, International Association of Surgeons
Member, International Association of Endocrine Surgeons
Member, International Association of Breast Surgeons
Member, Australian Society of breast Disease
Ear Nose Throat (ENT) Department

Clinical work constituted approximately sixty per cent of the department’s activities in 2002. Other activities included research, teaching and presentations.

Main projects of research include the treatment of cancer in the larynx and nasopharynx, perineural spread of Head and Neck squamous cell carcinoma, detection of acoustic neuromas, facial nerve function following acoustic neuroma surgery, sense of smell and allergic rhinitis, treatment of chronic sinusitis, treatments for Meniere’s disease, detection of anosmia, stem cell research involving cells harvested from the nasal passage, ten year retrospective reviews of parotidectomy, and hypopharyngeal cancer treated by pharyngolaryngectomy.

Staff
Professor Bill Coman, Chair ENT

ENT VMOS
Dr. Ben Panizza
Dr. Chris Perry
Dr. Tim Cooney
Dr Scott Coman

REGISTRARS
Dr. Ron Bova (Clinical Fellow)
Dr. John O’Neill
Dr David Chin

VISITING OVERSEAS MEDICAL OFFICERS
Lennart Greiff
Boris Haxel

RESEARCH OFFICER (UQ)
Joan Hendrikz

Current Research Activities

CLINICAL TRIALS
Quality of life, cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer (Professor WB Coman, S Coman, Dr R Bova, Professor M Poulsen (Mater), Dr B Hickey, Dr D Thomas, Dr K Gogna (Mater), Professor B Murdoch, Dr E Ward, L Cahill, K Dutkowski, L Galvin, J Hendrikz. Six collaborators and 23 agreed collaborators from other national and international centres).

Studying EBV specific CTL response in patients with nasopharyngeal carcinoma for potential immunotherapy development. (Professor D Moss (QIMR), Dr M Bharadwaj (QIMR), Dr D Chin, Dr M Elliott, Professor WB Coman, Dr. B Panizza, Associate Professor. A Sizeland (Royal Victorian Eye and Ear Hospital. Three collaborators).

Longitudinal Analysis of Cellular and Viral markers in Nasopharyngeal Carcinoma. (Professor D Moss (QIMR), Dr M Bharadwaj (QIMR), Dr M Elliott, Professor WB Coman. Two collaborators).

Perineural Spread of Cutaneous Head & Neck SCC. Epidemiology. (Dr B Panizza, Dr H Burns, Dr I Brown (Sullivan and Nicolaides Pathology). One collaborator)

Allergic Fungal Sphenoiditis. (Dr N Slee, Dr B Panizza).

Audiology (associated projects). Improved detection of small acoustic tumours using discrete waveform transformation analysis. (Mr D Brown-Rothwell, Dr W Wilson, Dr B Panizza).

The value of electroneuronography as an outcome measure of facial nerve function following acoustic neuroma surgery. [Mr D Brown-Rothwell, Ms E Towers, Dr B Panizza, Ms F Crombie (student), Ms R Kendal (student), Mr V Khammanivong (student)]

Development of a differentiation therapy for head and neck cancer. (Dr N Saunders, Professor WB Coman. One collaborator).

OTHER RESEARCH
Accessing archival material to determine the presence of EBV DNA in Head and Neck Malignancies. [Professor. D Moss (QIMR), Dr M Bharadwaj (QIMR), Dr D Chin, Dr M Elliott, Dr J Davis (QIMR), A Asgari (QIMR), M Corban, (QIMR), Professor WB Coman, Dr B Panizza, A/Professor. A Sizeland (Royal Victorian Eye and Ear Hospital). Six collaborators].

Clinical relevance of invasion and metastatic markers in HNSCC using cDNA microarrays profiling. [Professor. D Moss (QIMR), Dr M Bharadwaj (QIMR), Dr D Chin, Dr G Boyle (Griffith Uni), Professor P Parsons (Griffith Uni), Professor WB Coman. Four collaborators].
Granulocyte activity in eosinophilic airways disease. [Dr L Greiff (Sweden), Professor A MacKay-Sim (Griffith Uni), Professor WB Coman, Dr C Perry. Two collaborators].

Implanting nasal cells in the spinal cord. (Dr C Perry, Dr T Geraghty. One collaborator).

Retinoid for the prevention of head and neck cancer. (Dr C Perry, Dr T Cooney, Professor WB Coman, ENT Dept – RBH. One collaborator).

Acoustic neuroma gene array project. (Dr J Pickles, Dr B Panizza, Professor WB Coman, Dr V Shridhar. One collaborator).

Perineural Spread of Cutaneous Head & Neck SCC. Histology analysis. [Dr B Panizza, Dr H Burns, Dr I Brown (Sullivan & Nicolaides Pathology). One collaborator].

MR Neurography. [Dr B Panizza, Mr D Kennedy, Dr P Dubois, Dr M Gandhi, Dr R Clarke].

Immunohistochemistry gene chip analysis [J Askew (RBH), P Parsons (Griffith Uni), B Panizza, D Chin].

Allergic Fungal Sphenoiditis (B Panizza, N Slee)

Parotidectomy – A clinical review of treatment and outcome at Princess Alexandra Hospital over the past 10 years. Professor WB Coman, Dr R Bova, Dr A Saylor, J Hendrikz. One collaborator).

Pharyngolaryngology review (1977 – 2002) [Professor WB Coman, Dr R Bova, Dr Rgoh, J Hendrikz, University of Queensland)]

Financial Support
$93,869 Garnett Passe and Rodney Williams Memorial Foundation. Quality of life, cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer

$36,250 QIMR TDU Fund, Garnett Passe and Rodney Williams Memorial Foundation Defining immunological parameters relevant to nasopharyngeal carcinoma (NPC) in patients at different stages of the disease

$60,000 Garnett Passe and Rodney Williams Memorial Foundation. Longitudinal Analysis of Cellular and Viral markers in Nasopharyngeal Carcinoma

$30,300 Garnett Passe and Rodney Williams Memorial Foundation. Clinical relevance of invasion and metastatic markers in HNSCC using cDNA microarrays profiling

$5000 University of Queensland Acoustic neuroma gene array project

$81,180 Garnett Passe and Rodney Williams Memorial Foundation. Development of a differentiation therapy for head and neck cancer

Publications


ARTICLES ACCEPTED FOR PUBLICATION


Lectures and Presentations
Professor WB Coman:
Medicolegal: Chappel Vs Hart – A surgeons View. The Annual General Meeting of the Australian Society of Otolaryngology Head and Neck Surgery PERTH W.A (March)

Hypopharyngeal Cancer. Royal Australian College of Surgeons Congress, Adelaide (April)

Australian Refined Diagnosis Related Groups. Cartesian Society Meeting, Germany (July)

Frontiers in Otorhinolaryngology- Garnett Passe, Noosa (July/August)

Head and Neck Cancer forum

Head and Neck Cancer Overview

Poster presentation: Laryngeal Cancer Project - Quality of Life, Cost Effectiveness, Survival and
Functional Outcomes following differential management of Laryngeal Cancer
Management of late cancers in the hypopharynx. Colorado ENT Society, USA (August)
The value of nothing. Irish Otolaryngology Society, Ireland, (October) - Sir Henry Wilde oration
Hypopharyngeal Cancer, Lessons learned. Royal Victoria Hospital, Belfast, (October) - Bicentennial Celebration

Post Graduate Students
Ben Wallwork, Masters, PhD in progress
Brent McMonacle, PhD in progress

Public Service Relevant to Research
Professor W Coman
Journal Referee, Medical Journal of Australia
Member, Editorial Board, Australasian Journal of Oto-laryngology
Member, Triologic Society and on Editorial Board for the Laryngoscope (journal).
Journal Referee, ANZ Journal of Surgery
Member, Editorial Board, The American Journal of Otolaryngology Head and Neck Medicine and Surgery
Orthopaedics Department

The research program in orthopaedic oncology has been centred around both clinical and basic science research.

A number of projects have been completed, and others are nearing completion. Furthermore, some exciting collaborative projects are being commenced.

The biological research program is directed at cellular microstructure, and involves accessing our extensive tumour bank and investigating its gene expression profiling.

Currently the department consists of three surgeons, Drs Dickinson, Steadman and Sommerville, an orthopaedic fellow, Dr Wang, and a registrar, Dr Gallie.

Staff
Dr Ian Dickinson, Chair
Dr Peter Steadman
Dr Scott Sommerville
Dr Wang
Dr Gallie

Research Activities
Predicting clinical response of osteogenic sarcoma to chemotherapy using gene expression profiling.
Identification of novel tumour suppressor genes in human sarcoma (in conjunction with St Vincent’s Hospital and Peter McCallum Institute, Victoria).

Publications
Functional outcome following shoulder tumour resection and reconstruction.
Margin in soft tissue tumour resection – does it affect local recurrence and prognosis?

Lectures and Presentations
“Synovial Sarcoma”, Queensland Branch meeting, Townsville, May 2002.
“Prognostic Indicators and Treatment in Synovial Sarcoma”, Asia Pacific Musculoskeletal Tumour Society, Chennai, July 2002. (Invited speaker)

“Giant Cell Tumour Diagnosis and Management” – Instructional Course Lecture, Annual General Meeting, Australian Orthopaedic Association, Melbourne, October 2002. (Invited speaker)

POSTER PRESENTATIONS:
“Giant Cell Tumour – Treatment with Curettage and Bone Graft”, International Society of Limb Salvage, Birmingham, United Kingdom, October 2002.
“Myxoid Sarcomas – High Local and Distant Recurrence Rates”:
“Fibular Transplantation in Orthopaedic Reconstruction for Tumours”:
Queensland Liver Transplant Service

Staff
Associate Professor Stephen Lynch
Professor Russell Strong
Professor Jonathan Fawcett
Dr Anthony Griffin
Dr Darryl Wall
Dr Julie Jonsson
Dr Paul Taylor
Dr Paul Salm
Glenda Balderson

Current Research Activities

**Ischaemia-Reperfusion Injury of the Liver.** There are two strands of work. One is to explore the role of hepatocyte and endothelial apoptosis in a murine model of ischaemia-reperfusion injury, induced by temporary vascular inflow occlusion. This work was prompted by a review of post-reperfusion biopsies in liver transplant patients where apoptosis is a prominent feature. It has been found that Cyclosporin A pre-treatment reduces apoptosis by 75% and there is an associated reduction in neutrophil uptake into liver parenchyma. The effect of Cyclosporin A may not be solely mediated by prevention of the mitochondrial transition permeability phenomenon – there is also a marked reduction in Fas mRNA in the liver as well. Currently, a manuscript has been submitted to the Journal of Hepatology, which is undergoing revision.

Neutrophil activation and migration into tissues is a prominent feature of ischaemia-reperfusion injury. The second project is to try and inhibit the migration of neutrophils by cell adhesion blockade. The strategy has been to select for adhesion inhibiting peptides selected via a bacteriophage display approach, with the goal of blocking multiple points in the adhesion pathway. This work has proceeded as far as the selection of peptides against CD31 and ICAM-1, but these are yet to be tested in the animal model.

**The role of CD44 in cancer metastasis.** This project has been active since 1994. An animal model of adenocarcinoma metastasis has been developed in which HT29 cell are established as xenografts in mice by splenic injection. After interval splenectomy, the assay readout is the development of metastasis in liver and lung. Using this model it has been found that the so-called metastatic variant of CD44 is associated with the increased rates of distant metastasis. These findings have been published in Cancer Research. There is now a completed further series of experiments looking at mechanistic aspects of this phenomenon and it appears that the heparan sulphate binding motif in the v3 domain is a component of the metastatic effect. This work is being prepared for publication.

**Encapsulation in HepatoCellular Carcinoma (HCC).** HCC is a rapidly emerging health problem in Australia, principally due to rising rates of chronic viral hepatitis. Tumour encapsulation is a favourable prognostic feature that has been described both here and in other centres. Previous work in the department of surgery at the hospital has shown that the encapsulation response is mediated by hepatic stellate cells in the vicinity of the tissue. A developing area of cancer research is the host stromal response to tumour. Encapsulation is an example of this but in many instances, stromal responses can accelerate the progression of cancer eg. by the elaboration of angiogenic growth factors. Currently, the driving factors in encapsulation are being ascertained to see if it could be a profitable therapeutic area. Results from some pilot experiments have been encouraging- the administration of the metalloprotease inhibitor, Batimastat, to Buffalo rats leads to a markedly thickened capsule in a syngeneic model of HCC.

**The application of RadioFrequency Ablation (RFA) in the treatment of liver tumours.** Liver resection has become more sophisticated over the last two decades. At the centre, for instance, the median transfusion requirement for hemi-hepatectomy is now 0 units. Nonetheless, there are many instances in which tumours are inoperable even with complex strategies, such as total vascular exclusion, vascular resection / reconstruction, ex situ surgery and even transplantation. Non-invasive modalities of tumour treatment such as RadioFrequency Ablation (RFA) may have a role in the treatment...
of liver tumours in such situations. It is not clear, though, whether patients with inoperable tumours treated by RFA will achieve a substantial therapeutic benefit. A prospective assessment has commenced of RFA in patients with inoperable colorectal liver metastasis to determine whether therapeutic effect is observed. Likewise, the treatment of HCC in cirrhotic patients, whose tumours fall outside the Mazzaferro criteria, and are not offered transplant by the service is being studied. Finally, those patients who with HCC and endstage liver disease who are candidates for liver transplantation, may nonetheless wait for significant periods of time until a donor becomes available. It is intended that a study across Australia and New Zealand to look at whether RFA is an effective treatment for the tumours in this group of people awaiting transplant will commence.

Financial Support

Publications


ABSTRACTS WHICH HAVE BEEN PUBLISHED


Public Service Relevant To Research
Associate Professor. SV Lynch
1993 – Current, Editorial Board of "Transplantation".

1995 – Current, Member, International Scientific Board of ART, (Association for Research in Transplantation) Italy.

1995 – Current, Co-editor of Hepato Gastroenterology.

1996 – Current, Editorial Advisory Board of "Transplantation Reviews".

1998 – Current, Chairman, Sasakawa (Nippon Foundation) Memorial Fund Committee Royal Children's Hospital Foundation.

1998 – Current, Member Medical Advisory Board of Biliary Atresia and Liver Transplantation (BALT) a section of Children's Liver Alliance, New York USA.
1998 – Current, Member Editorial Board “Graft”.
1998 – Current, Royal Australasian College of Surgeons, Section of Transplant Surgery – Deputy Chairman.
Member Subcommittees – Training and Accreditation, Organ Donation.
2000 – Current, Section Editor for Transplantation of the ANZ Journal of Surgery.
2001 – Current, Member of International Council Asian Transplantation Society.
2001 – Current, President Transplantation Society of Australia & New Zealand.

Professor J Fawcett
Peer review for project grant applications.
Peer Review for journals – Transplantation, Liver Transplantation, Australian and New Zealand Journal of Surgery.
Research Committee, GE Society of Australia.

Professor R Strong
The Paediatric Liver Transplantation Editorial Board
Journal of Hepato-Biliary-Pancreatic Surgery Editorial Board
Section Editor (Liver) HPB
Upper GI and Queensland Melanoma Project

In 1994 a multi-disciplinary Upper GI Oncology Clinic was established with an emphasis on surgery, medical oncology and radiation oncology for the treatment of malignant dysphagia’s. All oesophageal and gastric malignancies are documented on a database. Over 100 new patients with malignant dysphagia are seen each year, of which half are operated upon. All patients being considered for non-oesophageal surgery with 24hr pH studies and manometry are documented. The Unit is also examining the role of gastro-oesophageal reflux in causing upper aerodigestive tract disorders. The Unit is a tertiary referral centre for complicated upper GI problems including patients with Achalasia and those who have had previous surgery with functional surgery.

Much is yet to be learned about the nature of metastatic tumour growth and host organ interactions with tumours. The targeting of cell-surface adhesion molecules and growth factors with a possible role in metastatic tumour growth has been deliberate, since the design of novel antagonists to such molecules are within the scope of current drug-based technologies. The liver potentially provides an ideal organ in which to test domain-specific agents not normally expressed by normal liver eg. anti-CD44v6.

These and other related projects will continue to be a strong focus of research within the Unit.

Staff
Professor DC Gotley
Associate Professor BM Smithers
Dr S Jones
Dr I Martin
Dr GR McLeod (Nov 2001)
J Thomas, Research Nurse

COLLABORATION
Dr B Burmeister, Radiation Oncologist, QRI
Dr J Harvey, Radiation Oncologist, QRI
Dr E Walpole, Princess Alexandra Hospital Medical Oncology
Dr D Thomson, Princess Alexandra Hospital Medical Oncology

Current Research Activities

CLINICAL TRIALS

Upper GI

Randomised trial of adjuvant chemoradiation followed by surgery versus surgery alone for carcinoma of the oesophagus. This trial had NHMRC support and was a national trial co-ordinated from the Princess Alexandra Hospital in Brisbane with colleagues Bryan Burmeister, chief investigator, and Mark Smithers. The aim was to test the hypothesis that adjuvant pre-operative chemoradiation is of benefit in the treatment of oesophageal cancer, and survival, disease free survival, disease relapse patterns and palliation are principal variables for evaluation. Activated in November 1994, it was closed in September 2000 with 250 patients accrued.

Randomised trial of adjuvant chemoradiation followed by surgery versus adjuvant chemotherapy followed by surgery for carcinoma of the oesophagus. Following closure of the first trial, a subsequent randomised phase II study of adjuvant chemoradiation versus chemotherapy prior to surgery was established at the Princess Alexandra Hospital. A large MRC multicentre randomised controlled trial of neoadjuvant chemotherapy for oesophageal cancer demonstrated a ten per cent survival advantage, this treatment is now used as the gold standard of therapy.

Phase II study of thoracoscopic mobilisation of the oesophagus in 3-stage oesophagectomy for cancer of the oesophagus. To test the hypothesis that thoracoscopic oesophageal mobilisation is feasible and safe. The procedure has been undertaken on 200 patients with oesophageal carcinoma. Mortality and morbidity have been compared with that in patients undergoing oesophagectomy by transhiatal and Ivor-Lewis techniques during the same period in a non-randomised fashion. Mortality is unchanged, two to six per cent, and respiratory morbidity appears to be reduced in those undergoing thoracoscopic mobilisation, presumably because the technique obviates thoracotomy. ICU time and overall hospital stay is reduced at the expense of longer operative time. A Phase III randomised trial is soon to commence, with particular reference to quality of life issues and palliation during the first 3 months post-operatively.

Prospective assessment of Quality of Life after Intervention for oesophageal cancer. To measure the effects of different treatment modalities on patients diagnosed with oesophageal cancer using...
EORTC Quality of Life tool. This study has been ongoing since 1998 with support from the Mater Private Hospital.

**Epidemiology of Oesophageal Cancer.** There are two main types of cancer of the oesophagus. One type is becoming increasingly common in Queensland, yet the reasons for this are far from clear. The aim of this study is to identify the cause of both types of oesophageal cancers by comparing people with and without the disease for a range of potential risk factor, including alcohol and tobacco, use of medication, history of heartburn, genes and viruses. (David Whiteman, Professor Adele Green, Assoc Professor M Smithers, Professor. David Gotley, Associate Investigators. Support: Queensland Cancer Fund - $60,000 per annum 2001 - 2002, NHMRC program grant to Queensland Institute of Medical Research).

Prospective documentation of Oesophageal and Gastric cancers managed within Princess Alexandra Hospital and the Mater Medical Centre.

“Pre and post-operative assessment for laparoscopic fundoplication”. This study utilizes oesophageal physiology studies and quality of life instruments to objectively assess the results of all patients who have anti-reflux surgery, both in the short and long term.

The use of endoscopic techniques for oesophageal resection in both benign and malignant disease.

**Laparoscopic Nissen fundoplication for gastro-oesophageal reflux.**

i) Ongoing detailed audit (Co-investigators: Mark Smithers, Les Nathanson)

In 1991 we commenced a longitudinal study of laparoscopic Nissen fundoplication for reflux, in which each patient is studied by 24-hour pH monitoring, gastroscopy and oesophageal manometry, reflux symptom and quality of life (QOL) questionnaires. Follow-up by 24-hour pH studies, manometry and symptom score at 3 months post-operatively, and QOL and symptom score at 1, 3 and 5 years is undertaken. Approximately 3000 patients have been accrued, and follow-up data has been presented to various Learned Societies.


**Melanoma Projects**

Phase III trial of Autologous vaccine for resected stage III patients. (Professor. M. O’Rourke, K. Ellem, C. Schmidt, M. Smithers, B. O’Loughlin).


Phase III multicentred trial of wide excision alone versus wide excision and selective lymphadenopathy for malignant melanoma. Associate Professor M Smithers, Clinical Professor R McLeod, Investigators. This trial is co-ordinated by the John Wayne Institute – California, USA

Phase III randomised double-blind pivotal trial of Immunotherapy with BCG plus a polyvalent melanoma vaccine versus BCG plus a placebo as a post-surgical treatment for stage III and IV melanoma. (Associate Professor M Smithers, Dr S Jones, E Walpole). The NIH in conjunction with CancerVax coordinates this trial.

**BASIC SCIENCE PROJECTS**

These projects focus on the biological aspects of metastatic growth of tumours.

1. Tumour Tissue Bank

A tumour tissue bank was established eleven years ago at the Princess Alexandra Hospital. The bank now has specimens of both normal and tumour tissue from 3600 patients who have undergone resection of a variety of tumours, including 350 colon cancers (and 250 liver metastases) and 120 renal cell cancers (including metastases). Clinical follow-up data are also...
available. These tissues are obtained fresh in the operating room and prepared for RNA, DNA and protein analysis by snap freezing in liquid nitrogen. Junctional specimens (between tumour growth margin and normal tissue) are also prepared for frozen section and in-situ hybridisation studies.

2. Development of Mouse Models of Metastasis
The use of in vivo models to investigate the functional significance of genes with a potential role in the metastatic process is well established. Mouse models of colorectal cancer metastasis, primary liver cancer and of renal cell cancer have been recently reproduced and refined in our Department.

i) Colon cancer
The hepatic metastasis model tests the ability of tumour cells to adhere and establish metastatic colonies in liver parenchyma. Tumour cell suspensions (1x10⁷) are injected into the spleens of nude mice at operation, and splenectomy (to prevent tumour growth in the spleen) is carried out 20 minutes later. This effectively functions as a direct portal injection of tumour cells, which would not be technically feasible otherwise, since most of the cells have been shown to be cleared from the spleen within an hour. With certain cell lines (e.g. HTm29) metastases are seen in 90% of animals in 30 days.

ii) Renal cell cancer
Subcapsular injection of tumour cell suspensions into the kidney of SCID mice using SN12K1 cells results in primary tumours in all animals and metastases in 60% in 90 days. This model is an example of a "spontaneous metastasis assay", and not only gives the opportunity to study angiogenesis in the primary tumour, but also in metastases.

iii) Hepatocellular Carcinoma
There is an interest in the mechanisms of encapsulation of primary liver tumours. Tumour-host interactions are an important aspect of tumour biology and the encapsulation of primary liver cancers, which has the appearance of limiting tumour invasion and confers an improved prognosis, is a unique natural model of these interactions.

Orthotopic injection of 1x10⁶ various HCCs derived from the Buffalo rat into the Buffalo rat liver to create HCCs of various invasiveness and encapsulation propensity.

Orthotopic injection of 1x10⁶ human HCC cells in the nude mouse gives rise to liver tumours at four to six weeks that are indistinguishable histologically from human HCC.

The tissue bank and animal models provide fundamental tools for our metastasis research.

iv) SCID Mouse spontaneous metastasis model induced by CD44v2-10
For the first time, a spontaneous metastasis model of a human tumour, generated by over expression of a CD44 splice variant has been established. This has permitted rapid experimental progress in the understanding of the mechanisms of CD44v-mediated metastasis.

3. Functional Role of Cell Adhesion Molecules in Tumour Growth and Metastasis.

i) CD44 family
Co-investigators: Toni Antalis, Jon Fawcett.
Funding: QCF, RACS Foundation; Princess Alexandra Hospital Foundation, NHMRC from 1997

The group have determined the expression pattern of CD44 molecules in colorectal cancer and bladder cancers at the messenger RNA level (RT-PCR, Northern blot analysis) and protein level (using our own novel CD44 variant specific monoclonal antibodies) to determine candidate variants for involvement in metastatic growth. This has been done by inhibiting the expression of variants CD44v3 and v6, in a colorectal cancer cell line (HT29), and no metastases were seen after subsequent inoculation in comparison with parental HT29 cells (thirty to forty percent metastasis rate) in our mouse models.

The mechanism(s) involved in this phenomenon have been investigated. Using a variety of cDNA constructs with mutations in potentially important functional sites, and exon deletions, the group have identified the heparan sulphate binding site on exon v3 as a mediator of lung metastasis in the human HCC, SKHep1. The current working hypothesis is that this site sequesters heparin binding growth factors such as VEGF and HGF, providing high concentration of these growth factors in the local micro-environment for presentation to definitive receptors. The group also have evidence of an outside-in signalling function with downstream phenotypic effects. This work may provide a novel therapeutic targets in metastatic cancer.

ii) The deleted in colon cancer (DCC) gene
Co-investigators: T Antalis and J Fawcett
Funding: Princess Alexandra Hospital Foundation, RACS Foundation

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DCC is a putative cell adhesion molecule and tumour suppressor gene with a possible role in a variety of cancers. The group have determined its expression at both the mRNA and protein levels in colorectal cancers during tumour progression. We have also characterised the DCC protein using novel monoclonal antibodies produced by JF. The results suggest that DCC is an important and ubiquitous molecule in cell-cell-tissue interactions. Also, the studies suggest that tumour suppressor genes may function by more complex mechanisms than simple homozygous allelic deletion.

4. Tumour Angiogenesis.
Co-investigators: D Nicol, N Hayward, J Fawcett.
Funding: Mayne Bequest, Princess Alexandra Hospital Foundation, Aust Kidney Foundation, QCF, Amrad.

Angiogenesis, or the generation of a blood supply, is necessary for a solid tumour to grow beyond 1-2mm in diameter. The identification of anti-angiogenesis agents may enable new therapeutic strategies to be devised, in particular, for vascular metastases.

a) Vascular endothelial growth factor (VEGF) is a potent endothelial mitogen and angiogenesis factor. The group has determined that it is markedly up-regulated in renal cell cancer (RCC) and colorectal cancer (CRC). It acts in a paracrine fashion on tumour endothelial cells. Functional studies are being undertaken on the relationship between VEGF expression and its receptors in tumours using an anti-sense RNA approach, and the generation of transgenic mice with conditionally expressed VEGF receptors. A marked effect of the drug Captopril on RCC growth, with inhibition of angiogenesis in metastatic deposits has been shown. A clinical trial is now underway.

b) VEGF related factor (VRF) is a novel growth factor that has recently been identified as a new endothelial mitogen with a high level of homology to VEGF, and which forms heterodimers with VEGF in vitro. The group has collaborated with Dr Nick Hayward in the cloning and characterisation of this gene. Current studies are aimed at determining the biological distribution of VRF and its possible role as a biological moderator of VEGF.

5. Tumour Cell/Host Organ Interactions.
Co-investigators: J Fawcett, D Crawford, LL Ooi.
Funding: RCH/Liver transplant trust funds; QCF, NHMRC from 1999.

There is growing evidence that host organs, containing growing metastases, are not merely inert recipients but in fact undergo a dynamic interaction with the tumour. In the case of hepatocellular carcinomas (HCC) and colorectal liver metastases, we have shown that hepatic stellate cells (which are hepatic stromal cells) are activated in the region of growing tumours and markedly upregulate pro-collagen mRNA production. These stellate cells may have a role in modifying extracellular matrix around tumours providing a fibrous capsule in some good prognosis HCC. The soluble factors responsible for this activation are currently under investigation. To do this, the group has established Buffalo rat HCCs of varying invasiveness and capsule forming capability. Currently, the researchers are using a combination of co-culture experiments with freshly isolated hepatic stellate cells in vitro and cDNA microarray analysis to determine likely molecules involved in this aspect of tumour-host interaction.

6. The Search for Novel Metastasis Genes
Co-investigators: T Antalis, M McGuikin
Funding: RCH/Liver transplant trust funds; QCF, NHMRC from 1999.

New metastasis-associated genes in colorectal cancer metastasis are being sought by using the resources of the tumour tissue bank and the complementary techniques of cDNA microarray, differential display of RNA and subtractive hybridisation. To date, four differentially expressed novel candidate partial gene sequences have been isolated and are being screened against panels of tissue specimens from the tumour bank. Two of these have subsequently been identified as novel mucin genes (MUC 11 and MUC12), and current efforts are directed to characterising them.

Publications


Burmeister BH, Harvey J, Smithers BM, Gotley DC. The localisation of small esophageal cancers for radiation planning using endoscopic contrast
Ong HS, Smithers BM. Epidemiology of gastric Cancer in Australia. Gastro Cancer 2002; 5: 118-121.

ACCEPTED FOR PUBLICATION

ABSTRACTS WHICH HAVE BEEN PUBLISHED

BOOK CHAPTERS

Guidelines for the Management of Melanoma 1998 - Member of the Advisory Group who developed the document. This is now an NHMRC guidelines book.

Lectures and Presentations
Associate Professor Mark Smithers
Invited Presentations
“The role of Laparoscopic Appendicectomy”
“Oesophageal Cancer – Trial proposals”
“Results of a prospective randomised trial of adjuvant therapy for operable oesophageal cancer.”
Annual Scientific Congress, Royal Australasian College of Surgeons, Adelaide
“Endoscopic oesophagectomy”
Seminars in Operative Surgery, Adelaide
The role of surgery for high grade dysplasia in Barrett’s oesophagus
Australian Gastroenterology Week, Gastroenterology Society of Australia, Adelaide
What should be the next trial for oesophageal cancer?
Surgical results following resection for high grade dysplasia in Barrett’s
Australasian Gastro-intestinal Trials Group, Annual Scientific Meeting, Hobart.
The management of oesophageal cancer. Caboolture Hospital Grand Rounds, Caboolture, Queensland.
Recent trends in oesophageal cancer. Cairns Gut Club, Cairns, Queensland
Update on neoadjuvant therapy for oesophageal cancer. The next trial?
International Society for Diseases of the Oesophagus, Australian Chapter, Lorne Victoria
The role of multidisciplinary care for oesophageal carcinoma.
Clinical Oncology Society of Australia, Annual Scientific Meeting, Sydney, Australia.
Professor David Gotley
Minimally invasive techniques of oesophageal resection
Adjuvant therapy for oesophageal cancer
Annual Scientific Meeting of the Association of Upper GI Surgeons of Great Britain, Manchester
Revision fundoplication after failed anti-reflux surgery.
Royal Australasian College of Surgeons, Annual Scientific Meeting, Adelaide
Reoperative anti-reflux surgery.
Seminars in Operative Surgery, Adelaide.
Laparoscopic Toupet Fundoplication – a better way.
Laparoscopic for Chronic Cough.
ISDEAS Conference, Lorne

Post Graduate Students

Upper GI Fellows
Wendy Brown, 2002
Khong Hee Lim, 2002-2003

PhD Students
Su Ing Hii 1997-2000 PhD 2002- “Studies on the role of VEGF in Renal Cell Cancer”
Gregory Malone Masters Medical Science 1999 “CD44 expression and tumour progression in renal cell cancer”

Current:
David Lockwood PhD student 1999- “Modulatory effects of extracellular matrix on HCC-hepatic stellate cell interactions”
Domenika Turkiewicz Masters Student 2001- “CD44v10 and tumour metastasis”

Public Service Relevant to Research

Professor David Gotley
President, Surgical Research Society of Australia and New Zealand
NHMRC, Review Panel
Australia and New Zealand Journal of Surgery – Editorial Board
British Journal of Surgery – Editorial Board

Associate Professor Mark Smithers
Royal Australian College of Surgeons, (RACS). - Chairman, Regional Subcommittee in General Surgery Member, National Board of General Surgery Scientific
Queensland Institute of Medical Research - Member of Governing Council
Australasian Gastrointestinal Trials Group - Member, Management and Scientific Advisory Committee
RACS Examiner Primary OSCE 1991 – present
Scientific Convener, RACS Annual Scientific Congress, 2003
RACS Executive, Surgical Oncology Group, 2001 – present
RACS Member, Court of examiners, General Surgery, 2002 - present
Queensland Institute of Medical Research, Member, Medical Advisory subcommittee 2001 – Present
Princess Alexandra Hospital, Chairman, Upper GI / Soft tissue Unit 1996 - Present
Member, Australasian Gastrointestinal Trials Group. Management and Scientific advisory committee 1995 – present
Peplin Biotech Pty/Ltd. Medical Advisory Committee 2000 – present
Member, Queensland Clinical Oncology Group (QCOE)
Member, interim executive committee, 2000 - present
Member, QCOE, Commissioning team, 2000 - present
Member, Queensland Cancer Registry, Advisory Committee, 2002 – present
Liver Research Group

Staff

SENIOR STAFF
Dr Elizabeth Powell, Gastroenterologist and
Director of Clinical Training Princess Alexandra
Hospital and Associate Professor of Medicine
Dr Julie Jonsson, Senior Research Fellow,
Department of Surgery, Princess Alexandra
Hospital
Dr Andrew Clouston, Pathologist and Associate
Professor of Medicine Princess Alexandra
Hospital, Sullivan and Nicolaides Pathology

RESEARCH STAFF
Dr David Purdie, Biostatistician, Population and
Clinical Sciences Division, QIMR

RESEARCH STUDENTS
Ms Michelle Richardson, Scientist
Dr Dana Vanags, Postdoctoral Research Fellow

Ingrid Hickman, PhD
Meagan Walsh, Honours

Current Research Activities

CLINICAL TRIALS
The role of weight reduction and nutrition in fatty
liver disease associated with chronic hepatitis C
Development of a serum-based assessment of
disease status in non-alcoholic fatty liver disease
The effect of renin angiotensin system blockade
on the progression of hepatic fibrosis
Factors affecting neuropsychiatric symptoms of
hepatitis C and side-effects of antiviral treatment

OTHER RESEARCH
The influence of host genetic factors on disease
progression and response to treatment in chronic
hepatitis C
Investigation of the relationship between steatosis
and fibrosis in chronic liver disease
Investigation of the mechanisms contributing to
human liver allograft acceptance

The role of the renin angiotensin system in hepatic
fibrosis

Funding

$50,000 per annum NHMRC Practitioner
Fellowship 2001-2005 (Powell)

$82,000 per annum NHMRC 2002 - 4
Investigation of the role of the Renin-Angiotensin
System in hepatic fibrosis, (Jonsson, Powell,
Clouston)

$40,000 per annum (from total grant of $95,000
per year), NHMRC 2001-3. Development of
clinically applicable strategies to induce and
monitor long-term acceptance of liver allografts.
(Bishop, Jonsson, McCaughan, Powell).

$36,000, Mayne Bequest 2001 (September)-2002.
Investigation of the role of the renin-angiotensin
system in hepatic fibrosis. (Jonsson, Powell,
Clouston, Stowasser).

$69,000 per annum Gesa Research Fellowship
2001-2003. The role of the renin angiotensin
system in hepatic fibrosis. (Jonsson).

$190,000, 2002 equipment grant. Consortium of
University of Queensland / Princess Alexandra
Hospital researchers successfully applied to the
University of Queensland Research Infrastructure
Fund to establish a Microarray Facility at Princess
Alexandra Hospital (including a Genescan
Microarray scanner and workstations equipped
with softWoRx spotfinder software and
GeneSpring Analysis Software). (Jonsson, Fraser,
Thomas, McMillan, Saunders, Mellick, Nicol,
Gotley, Shaw).

Publications

Clouston AD, Powell EE. Interaction of non-
alcoholic fatty liver disease with other liver
Oct;16(5):767-81.

MacDonald KP, Rowe V, Filippich C, Thomas R,
Clouston AD, Welply JK, Hart DN, Ferrara JL,
Hill GR. Donor pretreatment with progenipoeitin-
1 is superior to granulocyte colony-stimulating
factor in preventing graft-versus-host disease after
allogeneic stem cell transplantation. Blood. 2003
Mar 1;101(5):2033-42.

Clouston AD, Jonsson JR, Balderson GA,
Fawcett J, Lynch SV, Kelso A, Powell EE.
Lymphocyte apoptosis and cell replacement in
human liver allografts. Transplantation. 2002 Jun
15;73(11):1828-34.

Hickman IJ, Clouston AD, Macdonald GA,
Purdie DM, Prins JB, Ash S, Jonsson JR, Powell
EE. Effect of weight reduction on liver histology
and biochemistry in patients with chronic hepatitis


ABSTRACTS PUBLISHED


Lectures and Presentations
Dr E Powell

Dr J Jonsson
Gastroenterological Society of Australia (Queensland) August 2002 “The role of the Renin Angiotensin System In hepatic fibrosis –from bench to bedside” Australian Gastroenterology Week, October 2002 “The role of the Renin Angiotensin System In hepatic fibrosis-human studies”

Dr A Clouston

Postgraduate Students
Ingrid Hickman, PhD
Meagan Walsh, Honours

Awards to Staff Members
Dr E Powell
NHMRC Practitioner Fellowship (2001-2005)

Dr J Jonsson
GESA Research Fellowship (2001-2003)

Dr A Clouston
PhD, University of Queensland. 2002

Ms I Hickman
Bursary from the International Association for the Study of Liver Disease 2002 $2,400

NHMRC Biomedical Postgrad Scholarship 2002

Mr P Gochee
Fullbright Postgraduate Student Award ($35,550) Jul 2000 - Jun 2002

PhD, University of Queensland. 2002

Public Service Relevant to Research
Dr E Powell
Hepatitis C virus projections working group (national representative of the Australian Liver Association)
Queensland Hepatitis C Advisory Committee
Assessor, NHMRC project grants

Dr J Jonsson
Journal reviewer Gastroenterology, Journal of Hepatology
Assessor, NHMRC project &program grants

Dr A Clouston
International Academy of Pathology (Australasian Division) Queensland Councillor
Discipline Supervisor, Pathology, Southern Clinical School, 2000-2002
Diagnostic Theme Integration Committee, MBBS Course, 2001-2002
Assessment Working Group, Year 2. 2000-2002
Teaching and Learning Committee, Dept of Pathology. 1995-2002
Journal reviewer Hepatology, Journal of Hepatology, Pathology
Assessor, NHMRC project grants

Centres for Health Research
**Ophthalmology**

The University Department of Ophthalmology has a heavy clinical load dealing principally with patients with problems of the front of the eye. As part of this clinical load, there is a substantial body of clinical research relating principally to two areas, pterygium and cancer on the surface of the eye.

Teaching responsibilities encompass medical students, optometry students, ophthalmologists and optometrists as well as the lay public.

Clinical research is principally related to understanding the epidemiology, diagnosis and treatment of sun related eye diseases principally pterygium and cancer on the surface of the eye.

Other clinically related areas of interest are in eye banking to produce the best quality, highest yield tissue.

**Staff**
Professor Lawrie Hirst  
Dr Peter Madden  
Dr Christina Bi

**Current Research Activities**

**CLINICAL TRIALS**
Randomised clinical trial in mitomycin for ocular surface dysplasia

**OTHER RESEARCH**
Epidemiology of paecilomyces endophthalmitis  
Cornea in the flying fox  
Development of a new corneal measuring device

**Financial Support**
$350,000 in private donations

**Publications**

**ACCEPTED FOR PUBLICATION**
Hirst LW. The Treatment of Pterygium. (in press Survey of Ophthalmology)  
Purdie J, Neale R, Hirst LW, Green A: Sun exposure as a risk factor for Nuclear Cataract in an Australian community. (accepted by Epidemiology)

**Lectures and Presentations**
Flinders University Adelaide – John Slade lecture

**Post Graduate Students**
Glenda Nolan PhD  
Andrew Carroll MPH
Plastics and Burns Unit

The Department of Plastic and Reconstructive Surgery, Maxillofacial Surgery and Burns is a large clinical department treating patients with a broad spectrum of clinical problems. The Unit performs the second most cases in the Division of Surgery after Orthopaedics.

Areas of expertise covered by the Unit include reconstructive microsurgery for head and neck reconstruction, orthopaedic limb salvage after both trauma and tumour resection, and breast reconstruction. Skin malignancy treatment and reconstruction is a major problem for the population of Queensland and the Plastic and Reconstructive Surgery Department devotes a large amount of effort into treating this problem. Maxillofacial trauma is also well covered by the Unit. A large number of burns under twenty-five percent total body surface area are also treated.

The Plastic and Reconstructive Surgery Unit is constantly involved in clinical research activities, particularly in the areas of head and neck reconstruction and orthopaedic oncological reconstruction. Projects have included: Free Jejunal Interposition Reconstruction after Pharyngolaryngectomy, 201 consecutive cases, Free Vascularized Fibular Reconstruction after Orthopaedic Long Bone Tumour Resection, Pectoralis Major Myocutaneous Flap Donor Site Closure, Radial Forearm Flap Donor Site Morbidity – Radial Nerve Implications and Microsurgical Anastomosis of Hepatic Artery in Paediatric Reduced Size Liver Transplantation.

Staff
David R B Theile, Chairman of Plastic Surgery

VISITING MEDICAL OFFICERS
James Emmett
Tony Kane
Greg McDermant
Shireen Senewiratne

Research
The main areas of research involve clinical research in the areas of head and neck reconstruction and orthopaedic limb salvage reconstruction after long bone tumour resection.

Current Research Activities

CLINICAL RESEARCH
Ongoing studies on hepatic artery anastomosis in reduced size liver transplantation and fibular reconstruction after orthopaedic long bone tumour resection.

Lectures and Presentations
Dr David R B Theile
“Lower Blepharoplasty – Ten Consecutive Cases”
Presented at ASAPS, 2002, Bintan.

“A Problem Case – Lower Blepharoplasty”
Presented at ASAPS – 2002, Bintan.
Surgical Oncology (Metastasis Research) Laboratory

The Metastasis Research Laboratory investigates mechanisms of tumour metastasis (cancer spread) with a view to developing novel metastasis-specific therapies. Tumour metastasis remains the principal cause of treatment failure in cancer care, since whilst many primary tumours can be cured by surgical resection, radio or chemotherapy, metastatic tumours are frequently not amenable to these modalities. The Laboratory is intimately linked to the Princess Alexandra Hospital Tumour Tissue Bank, which has been collecting tumour tissues, including metastases, donated by patients with cancer, since 1991. The Metastasis Research Laboratory is closely linked with the clinical activities of cancer care in the Upper GI-Melanoma Unit of the Hospital, and has surgeons-in-training undergoing PhD programs in association with the Clinical Unit.

Staff
Professor DC Gotley, Head
Professor J Fawcett
Dr Andrew Barbour
Dr Trina Yeadon
Jenny Reeder
Glen Dixon
TUMOUR TISSUE BANK
Shirley Callaghan
Betty Menzies

Research

MAIN AREAS OF RESEARCH
Tumour Tissue Banking. Patients undergoing surgical treatment of their cancer are asked to consider consenting to having several small tissue samples removed from their resected surgical specimen for storage in the Tissue Bank for research purposes. The specimens are processed in such a way as to facilitate a wide variety of research techniques in the study of cancer. For example, gene expression profiling in low grade versus high grade tumours, or non-metastatic versus metastatic tumours, are shedding light on which genes are important in tumour progression. Tissues are accompanied by de-identified patient data to enable correlation with important clinical variables e.g. smoking history, and long-term outcome. The Tissue Bank is the largest of its kind in Australia, and its activities, especially in clinical outcomes data collection, were expanded during 2002.

A Development Grant was awarded by Schering-Plough in 2002, to continue with the development of the Tumour Tissue Bank.

The Mechanisms of CD44-mediated Tumour Metastasis. CD44 is a family of cell adhesion molecules derived from the same gene by a process of alternative splicing. Certain CD44 splice variant molecules have been associated with tumour metastasis by this and other laboratories. A murine model of spontaneous metastasis using SCID mice and the human hepatocellular cancer cell line SKHep1, where the metastatic phenotype was conferred by the over-expression of the largest CD44 molecule, CD44v2-10 has been established. Several domains of the CD44v2-10 molecule have been identified. These are vital to the metastatic phenotype, which includes CD44v6, CD44v3 and the cytoplasmic domain. The group has also determined a signalling function for CD44v2-10 in the metastatic process. Work during 2002 aimed to better elucidate the precise mechanisms behind the role of each of these domains in tumour metastasis.

CD44 as a Target for Metastatic Therapies. Investigations have shown that by inhibiting expression of the CD44 domains v3 and v6 by anti-sense and antibody techniques, metastatic behaviour in a colorectal cancer cell line in a nude mouse model could be reduced or abolished. Further, soluble CD44v peptides had a similar metastasis-inhibiting effect. During 2002 methods of delivering these agents to tumours as a prelude to considering them potential candidates for application in human tumours were refined.

Financial Support
GRANTS
NHMRC: Role of CD44 Splice Variants in Tumour Metastasis $72,000
Schering-Plough Research Institute: Metastasis Research $58,000
Royal Australasian College of Surgeons $90,000
(PhD Scholarships)

Publications
ARTICLES ACCEPTED FOR PUBLICATION

Lectures and Presentations
Annual Scientific Meeting of the Association of Upper GI Surgeons of Great Britain, September 2002:
Plenary Lecture: “Minimally invasive techniques of oesophageal resection”

Plenary Lecture: “Adjuvant therapy for oesophageal cancer”

Post Graduate Students
Dr David Lockwood
Dr Domenika Turkiewicz
Dr Andrew Barbour awarded PhD, UQ

Public Service Relevant to Research
Professor DC Gotley
President, Surgical Research Society of Australia and New Zealand

NHMRC, Grant Review Panel
Royal Australasian College of Surgeons – Board of Research
Australia and New Zealand Journal of Surgery – Editorial Board
British Journal of Surgery – Editorial Board
Urology Department and Renal Transplant Unit

The Princess Alexandra Hospital Urology Department accommodates over 8500 inpatient, day patient admissions and occasions of service each year ranging from consultations, continence advisement and urodynamics investigations to major and minor urological surgery. The Department also provides comprehensive health care for persons with acute or chronic urological disorders and care of patients with malignancies of the genitourinary tract. The service provided by the Urology Department is supported by a strong commitment to the ongoing research and education of graduate medical students, allied health professionals and both hospital and community nursing and medical officers for the improvement of the individual and community health outcomes.

The Renal Transplant Unit takes a multidisciplinary and collaborative approach to patient care working effectively in unison with the Nephrology Department providing comprehensive pre and post transplantation services. The Princess Alexandra Renal Transplant Unit performs over 100 renal transplants each year supported by the highest survival rates compared with other transplant units in Australia and New Zealand. With close affiliation with the Nephrology Department, the Renal Transplant Unit provides intensive short and long term follow-up for renal transplant recipients.

Staff

Dr David L Nicol, Director Urology and Renal Transplant, Associate Professor of Surgery (University of Queensland) Adjunct Professor School of Life Sciences Queensland University of Technology

UROLOGY STAFF
Dr Ross Cartmill, Urologist
Dr Peter Heathcote, Urologist
Dr Roger Hinsch, Urologist
Dr Graham Holmes, Urologist
Dr Peter MacTaggert, Urologist
Dr John Preston, Urologist
Dr William Cadzow, Urologist
Dr Glen Wood, Urologist
Mr Peter Morrison NPC Urology
Ms Gayle Frohloff CNC, Renal Transplant
Recipient Coordinator
Ms Colleen Marsh, RN, Continence Advisor
Ms Irina Oleinikova, Clinical Trial Coordinator (University of Queensland)
Ms Beth Morrison, RN BN, Clinical Coordinator (Queensland University of Technology/Onyvax)
Mr Ian Wilson, Urology Technician

AFFILIATED SCIENTIFIC STAFF (UQ)
Dr Meaghan L. Douglas, Research Officer
Michelle Richardson, Research Assistant

UROLOGY RESEARCH FELLOW
Dr. Arthur Vasilaras, Research Fellow

RENAL TRANSPLANT UNIT STAFF
Dr. David Johnson, Nephrologist
Dr. Scott Campbell, Nephrologist
Dr. Carmen Hawley, Nephrologist
Dr. Nicol Isbel, Nephrologist
Dr. Jim Petrie, Nephrologist
Dr. Andrew Bofinger, Nephrologist
Dr. Anthony Griffin, Surgeon
Dr. John Preston, Surgeon
Dr. Daryl Wall, Surgeon
Dr. John Quinn, Surgeon
Dr. Peter Woodruff, Surgeon
Mr Phillip Bettens NPC Transplant Services
Ms Joan Allen CNC Transplant Services
Ms Gayle Frohloff CNC, Renal Transplant Recipient Coordinator
Ms Allison Brown RN, Data Manager
Ms Kirsten Franzen BN RN, Research Nurse

AFFILIATED SCIENTIFIC STAFF
Dr. David Vesey, Senior Research Scientist,
Ms Catherine Cheung, Research Scientist

RENAL RESEARCH FELLOWS AND SENIOR REGISTRAR
Dr Balaji Hiremagalur MB BS,
Senior Renal Registrar
Dr Markus Rumpsfeld MD, Nephrologist,
University of Tromso Research Fellow

Current Research Activities

The Urology Research Group has a strong interest in Urological malignancies which include cancers affecting the kidneys, bladder, testes and prostate gland. For patients diagnosed with such tumours, current treatment options may either be ineffective or associated with significant side effects. The Urology Research Group is involved in scientific research focused on finding new, effective and less toxic means of treating patients with urological malignancies.
The main research outcome of the Urology Department and Renal transplant Unit is to improve the outcomes and quality of life of patients with urological and renal disease. Both the Urology Department and Renal Transplant unit (in association with the Nephrology department) participate in mult Centre clinical trials assessing interventions that may inhibit disease progression, assessment of the safety and efficacy of drug therapy ranging from symptom relief medication to anti-rejection therapy following transplant surgery.

**LOCAL - UROLOGY DEPARTMENT**

**Mechanism of action of captopril on human renal cell carcinoma (Chief Investigators: Nicol, Harvey, Jonsson; Researchers: Douglas; PhD Students: Reid, Hii).**

Investigation in the role of testisin in human testicular cancer. (Chief Investigators: Nicol, Antalis; Researchers: Scarman, Hooper, Douglas; PhD Student: Boucaut). Collaboration with Queensland Institute of Medical Research and Queensland University of Technology

Pre-clinical trial of heparin-binding growth factor blockade in human renal cell carcinoma (Chief Investigators: Nicol, Douglas, Podger) Research Agreement with Progen Industries Pty Ltd

**RENAL TRANSPLANT UNIT IN ASSOCIATION WITH THE NEPHROLOGY DEPARTMENT**

**LOCAL**


A retrospective analysis of post-renal transplant lymphoproliferative disorder. (Johnson DW, Campbell SB, Isbel N, Hawley CM, Herzig KA, Juffs H, Gill D).

Prevalence of skin cancer in renal transplant recipients (Ramsay HM, Hawley CM, Nicol D)

**Renal transplant rejection: effect of genes influencing oxidative stress (Ramsay HM, Fryer AA, Smith AG, Harden PN, Hawley C, Nicol D)**

**NATIONAL AND INTERNATIONAL CLINICAL TRIALS**

Open-Label Study of Oral Sirolimus for Treatment of Refractory Solid Organ Allograft Rejection and Prophylaxis in Transplant Patients at Risk for Allograft Rejection in Whom Approved Agents are Contraindicated, Not Tolerated, or Ineffective (Renal Transplant Unit Team) (Franzen, K)

A Phase II Open-Label, Concentration-Controlled, Randomised, 6-month Study of “Standard-Dose” Tacrolimus + Sirolimus + Corticosteroids Compared to “Reduced-Dose” Tacrolimus + Sirolimus + Corticosteroids in Renal Allograft Recipients (Renal Transplant Unit Team) (Franzen, K)

“Combination Therapy with Prograf and Mycophenolate Mofetil (MMF); A Dose Tapering Investigation” (Renal Transplant Unit Team) (Franzen, K)

A Double-Blind, Randomised, Placebo-Controlled Study with Open-Label Dose Titration Phase to Assess the Safety and Efficacy of an Oral Calcimimetic Agent (AMG073) in Secondary Hypothyroidism of End-Stage Renal Disease (ESRD) Subjects (Hawley, C) (Bailey R)

A placebo controlled, double-blind study of the effect of two dose levels of sirolimus plus standard immunsuppressive therapy in renal allograft recipients (Renal Transplant Team) (Franzen K)

**UROLOGY**

**ONGOING CLINICAL TRIALS**


A Randomised, double blind, parallel group trial comparing Cosudex 150mg once daily with Placebo in patients with Non-Metastatic Prostate cancer. Study 7054IL/0024 CAPRI (Chief Investigator: Dr. Nicol) March 1998 –

A phase III, randomized, Double-blind, Placebo-Controlled study of the safety and efficacy of 10mg Atrasentan in Men with Non-metastatic, Hormone-Refractory Prostate Cancer. (Chief Investigator: Dr. Nicol,) August 2001 –

A phase III, randomized, Double-blind, Placebo-Controlled study of the safety and efficacy of 10mg Atrasentan in Men with metastatic,
Hormone-Refractory Prostate Cancer (Chief Investigators: Dr. Nicol) August 2001 –
A phase III, Extension study of the safety and efficacy of 10mg Atrasentan in Men with Non-metastatic, Hormone-Refractory Prostate Cancer. (Chief Investigator: Dr. Nicol) August 2001 –
An open label, long-term safety and efficacy follow-up study of YM905 5mg and 10mg in patients with overactive bladder. (Chief Investigator: Dr. Nicol) December 2001 –

RENNAL TRANSPLANT UNIT IN ASSOCIATION WITH THE NEPHROLOGY DEPARTMENT
ONGOING RESEARCH
A randomized controlled trial assessing the impact of oral iron supplementation on mycophenolate mofetil absorption in renal transplant recipients (Johnson DW, Campbell SB, Hawley CM, Isbel N, Nicol DL, Taylor P, Pillans P).
The role of subclinical rejection in renal transplant outcomes (Johnson DW, Campbell SB, Isbel N, Hawley C, Nicol D).
The role of tumouresectomised kidneys as a potential source of allografts for renal transplantation (Nicol DL, Johnson DW, Campbell SB, Isbel N, Hawley C).
A randomized, open-label study of continuous therapy with cyclosporine and sirolimus versus induction with cyclosporine and sirolimus followed by continuous therapy with sirolimus in renal allograft recipients.
An Open-Label Extension Study of the safety of Long-Term Administration of Sirolimus in Solid Organ Transplant Recipients
An open label extension study of the safety of Long-term administration of sirolimus (Rapamune) in solid organ transplant recipients.
A randomized, open label, comparative evaluation of conversion from calcineurin inhibitors to sirolimus versus continued use of calcineurin inhibitors in renal allograft recipients.

A 1 year multicentre, randomized, open label parallel group study of the safety, tolerability and efficacy of two doses (1.5 and 3mg/day) of Certican (RAD001) with Simulect, corticosteroids and optimized administration of Neoral in de novo renal transplant recipients.
A 1 year Double-Blind, Double-Dummy and 2 year open-label, randomised, multicentre, parallel group study of the efficacy and safety of SDZ RAD tablets versus Mycophenolate Mofetil as part of triple immunosuppressive therapy in de novo renal transplant recipients (extended to 5 yrs) (Renal Transplant Unit Team) (Franzen, K)
A One Year, Randomized, Open label, Parallel Group Study to Investigate the Safety and the Effect of Myfortic (ERL080) in Combination with Either Full Dose or Reduced Dosed Neoral, in De Novo Kidney Transplant Recipients.
A 24 hour Holter monitoring in stable adult renal transplant patients maintained on cyclosporine and mycophenolate mofetil (CFTY729A2216).
An Observational, Long-Term, Multicentre Study of the Impact of Therapeutic Decision Making for Transplant Recipients Prescribed Neoral Under Conditions of Normal clinical Practice (Renal Transplant Unit Team) (Martin A)

OTHER RESEARCH
Efficacy of inhibition of endothelin activity on human renal cell carcinoma (Chief Investigators: Nicol, Douglas) Research Agreement with Abbott Pharmaceuticals
Molecular and phenotypic analysis of primary cell lines established from urological malignancies (Chief Investigators: Nicol, Clements) Research Agreement with Onyxvax Pty Ltd (UK) in collaboration with Queensland University of Technology and Princess Alexandra Hospital
The effects of hormonal manipulation in human testicular cancer (Chief Investigator: Nicol; Researcher: Douglas)
The role of proximal tubule mitogens (IGF-I, HGF, Angiotensin II) in the progression of renal cell carcinoma in vitro and in vivo (Cheung C,
Financial Support


$800,000 2002 –2004. Onyvax Pty Ltd (UK). Molecular and phenotypic analysis of primary cell lines established from urological malignancies (Principal Investigators Nicol, Clements Collaboration with Queensland University of Technology / Onyvax Pty Ltd (UK))

$190,000 NHMRC Trial comparing chemoradiotherapy versus radiation in the treatment of bladder cancer (TROG and Urological Society. Gogna, Duchesna, Berry, Nicol, Walpole, Beller, Mater Misericordiae health Services, Queensland Radium Institute).

Publications


ABSTRACTS WHICH HAVE BEEN PUBLISHED


ARTICLES ACCEPTED FOR PUBLICATION

Vasilaras A, and Nicol D. Urological implications of Cyclosphamide and Ifosamide BJU International (In Press)


Lectures and Presentations


thalidomide. Queensland Health and Science Meeting. Poster Presentation

**Post Graduate Students**
Janet L. Reid, PhD, completed 2002

**Public Service Relevant to Research**

**Dr. David Nicol**  
Associate Professor of Surgery, University of Queensland  
Adjunct Professor, School of Life Sciences  
Queensland University of Technology  
Examiner for Royal Australasian college of Surgeons  
Examiner for Australian Medical Council  
Queensland State executive for the Australian Kidney Foundation  
Editorial Board, British Journal of Urology

**Dr. Glen Wood**  
Invited Reviewer for NHMRC

**Dr Ross Cartmill**  
International Editorial Board for the Journal of Sexual & Reproductive Medicine

**Dr David Johnson**  
Caring for Australians with Renal Impairment (CARI) Clinical Practice Guidelines Steering Committee Member  
Australian and New Zealand Dialysis and Transplant Association (ANZDATA) Registry
Centre for Immunology and Cancer Research

The Centre for Immunology and Cancer Research is a University Level Research Centre of the Faculty of Health Sciences at the University of Queensland. The Centre for Immunology and Cancer Research consists of over ninety researchers, students and support staff.

The Centre is comprised of two major research groups. The Immunobiology Unit which focuses on understanding immune physiology to design better therapeutics, and The Cancer Biology Unit which exploits the biology of cancers to develop new anti-cancer therapies.

Our Vision
“Focused research in immunology and cancer biology to improve disease outcome”

Our Aim
“To enhance at all levels the international profile and competitiveness of the centre through optimal deployment of available funds”

Staff

DIRECTOR
Professor Ian H. Frazer, BSc (Hons) MB ChB Edinburgh, MD Melbourne, FRCP (Ed), FRCPA

DEPUTY DIRECTOR
Dr Ranjeny Thomas, MBBS MD University of Western Australia, FRACP

IMMUNOLOGY UNIT

DENDRITIC CELL BIOLOGY
Dr Ranjeny Thomas
Dr Brendan O’Sullivan
Ms Saparna Pai
Ms Ela Martin
Ms Amanda Boyce
Ms Janine Richards
Ms Judy Peng
Ms Fiona McNeil
Mr Angus Thompson
Mr Mengyong Yan

MOLECULAR & CELLULAR BIOLOGY UNIT

MOLECULAR VIROLOGY
Dr Nigel McMillan
Mrs Elizabeth Payne
Mrs Liliana Munoz
Mr Tom Fothergill
Mr Daniel Clarke
Mr Aaron Irving
Ms Lani Hardy

EPITHELIAL PATHOBIOLOGY
Dr Nicholas A. Saunders
Ms Alison L. Dahler
Ms Louise Knop
Mr Liam Barnes
Ms Claudia Popa
Ms Maggie Serewko
Ms Chung Fai Wong

EPITHELIAL TUMOUR AND IMMUNOLOGY UNIT

PAPILLOMAVIRUS VACCINES
Professor Ian Frazer
Dr Graham Leggatt
Dr Jie Zhong
Dr Xiaosong Liu
Mrs Rachel DeKluyver
Mrs Kylie Hengst
Ms Olivia White
Mr Sharmal Narayan
Memory T cell group
Dr Germain Fernando
Tania Peters

BIOLOGICAL RESEARCH FACILITY
Michelle Latimer
Kelly Minto

CELL CYCLE GROUP
Dr Brian Gabrielli
Dr Heather Beamish
Mr Angus Harding
Ms Nichole Giles
Mr Andrew Burgess
Ms Robyn Warrener

PAPILLOMAVIRUS STRUCTURAL BIOLOGY
Dr Kong-Nan Zhao
Mr Wenyi Gu

CODON LAB
Dr Rebecca Angus
Mr Aneel Kushal
Liz Tomlinson
Yan Xu
Research

MAIN AREAS OF RESEARCH

Professor Ian Frazer
The major interest of the group is in the mechanisms by which immunotherapy might be effective against solid tumours, particularly tumours of epithelial surfaces, and which express clearly defined tumour antigens. The Group’s work centres round models in which defined tumour antigens are presented to the immune system only by somatic cells, and concentrates on defining the relevant immune effector mechanisms, and why these are ineffective in patients with cancer. A translational component to the research studies mechanisms for inducing effective immunity through vaccination, and defines the best vaccination strategies for solid tumours expressing defined tumour antigens.

A second interest of the Group is in the mechanisms by which self reactivity to tumour and other self antigens are regulated locally within a tumour or somatic organ. The Group’s models allow testing of the circumstances under which this fails, and the requirements for its maintenance. Translation of this research into the clinic to modulate the course of autoimmune disease is also under development.

A third research interest is in the extent to which codon usage within a gene determines the site of expression of that gene within an organism. The intent is to exploit this research to target gene therapy, improve protein expression in vitro, and improve the immunogenicity of polynucleotide vaccines.

Associate Professor Ranjeny Thomas
The laboratory aims to understand the biology of dendritic cells so that this can ultimately be applied to the modification or therapy of diseases that affect the immune system, including autoimmunity – such as rheumatoid arthritis – transplantation, and cancer.

Dr Brian Gabrielli
The laboratory focuses on the mechanisms regulating progression from S phase through G2 into mitosis. One of the research interests is the regulation of G2 phase progression and how this controls the timing of entry into mitosis. Researchers are also investigating the G2 checkpoint induced by physiological ultraviolet radiation of human skin, and how defective checkpoint control contributes to skin neoplasias, particularly melanoma.

The Ras-Raf-MEK-ERK pathway in mitosis is also being examined. A major question is the contribution of Ras signalling to G2/M progression and the fidelity of mitotic partitioning of the replicated genome.

The loss of checkpoint controls is common in cancers, and many of the “cancer susceptibility genes” normally function in checkpoint controls. This is being investigated using a detailed understanding of the normal function of checkpoints, to selectively target the destruction of tumours.

Dr Nigel McMillan
The Molecular Virology Group has been working in the past few years towards understand how viruses and cancer cells are able to avoid the interferon response. Interferon is able to protect cells from virus infections and stop cancer cells growing. Several papers have been published showing how a number of viruses do this very successfully in a number of different ways. For example, the Group has shown that HIV, the virus that causes AIDS, inactivates a key protein in the interferon response called PKR by binding directly to it and either distracting it from its real task or eliminating it all together.

Much of the current work has been in trying to understand how the human papillomavirus is also able to achieve this escape from Interferon. Paula Barnard, who completed her Ph.D. in 2000, showed that papillomavirus makes a protein called E7 that is able to stop the signal to cells generated by Interferon itself, thereby stopping over 200 genes being induced to fight viral infection and cancer. Using our new Taqman realtime PCR machine we have shown the level of this E7 gene determines how much suppression is present. Her work points towards a new way in which we may be able to treat patients with cervical cancer and other HPV-infections. Based on this work funding has been granted by the NHMRC to start a clinical trial at the Princess Alexandra Hospital to pre-test patients with HPV infections to see if the levels of E7 and other genes predict successful treatment. It is by understanding the exact means by which viruses avoid the immune system that the researchers will be able to achieve new and better therapies and treatments.
Funding has also been received to further a project looking at the function of a growth regulating protein in the cell called PKR. It has been found that PKR is not working in patients with chronic leukemia. This disease is the most common leukemia in adults in the world and is currently untreatable by conventional means. Patients samples are being looked at to investigate if this is a widespread problem. By repairing PKR function normal growth control should return to these cells.

Following the Group’s discovery of the cell receptor for papillomavirus, a world first, they have been interested in the events following virus binding to the cell. Using DNA arrays the researchers are able to tell with great precision which genes have been turned on or off following virus attachment. This provides clues as to how viruses take over cells and what things they require in order to do so. The researchers have found using this technology that viruses signal to cells and make them grow in order to be able to start infection. This finding could lead to new and novel antiviral treatments.

Dr Nicholas Saunders
The Epithelial Pathobiology Group has three core aims:

- To understand the molecular events that control keratinocyte proliferation and differentiation
- To examine how these processes become disrupted during squamous cell carcinoma development
- To exploit this knowledge in developing new therapies for the treatment of squamous cell carcinoma.

All the research projects that are undertaken within the research group broach these three core aims and are based on the premise that cancers form from normal cells that have undergone some alteration in their behaviour that manifests as a cancer. The two cancer types the group has specific interest in are squamous cell carcinoma of the skin and squamous cell carcinoma of the head and neck region. Skin cancer currently afflicts seventy per cent of the Australian population and the squamous cell carcinomas represent approximately ten –fifteen per cent of all skin cancers. Squamous cell carcinoma of the head and neck region is currently the sixth leading cause of cancer death worldwide. Both these forms of squamous cell carcinoma are currently treated by surgery / radiation therapy / chemotherapy. However, a significant number of these patients are not cured by such strategies and die of their disease. It is believed that through a comprehensive understanding of the biology of squamous cell carcinoma the Group will be able to develop selective and non-toxic therapies for the treatment of cancer.

**Current Research Activities**

Since 1996, Trials of a cervical cancer vaccine, CSL Ltd (Ian Frazer, Ranjeny Thomas, Graham Leggatt, Germain Fernando)

Since 1992, A murine model for epithelial tumour resistance to immunotherapy, NIH, QCF, NHMRC, CRI (Ian Frazer, Germain Fernando, Graham Leggatt, Karen Macolm, Anne Louise Bulloch, Rachel De Kluuyver, Linda Dunn)

Since 1991, Virus Like particles as tools to study PV virology and immunology, NHMRC, NIH, QCF (Ian Frazer, Jian Zhou, Nigel McMillan)

Since 1998, Codon usage/ _a.tRNA availability as a determinant of gene translation, NHMRC (Ian Frazer)

**CLINICAL TRIALS**

A phase I trial of E7 immunotherapy for Cervical cancer – IH Frazer

Pretreatment levels of IFN-responsive and viral genes in genital HPV infection – N McMillan

Activity of PKR in B-CLL patients – N McMillan

DNA Microarray analysis of B-CLL patients – N McMillan

**OTHER RESEARCH**

N McMillan
Role of E7 in the evasion of the interferon response

Investigation of the HPV receptor

Herpes virus evasion of the interferon response.

Use of siRNA to treat cancer

B Gabrielli
G2 phase cdk2/cyclin A co-ordinates multiple pathways in G2/M progression.

Mitotic regulation of the Ras/Raf/MEK/ERK pathway.

Mechanism of UV induction of the melanoma susceptibility gene product p16.

Histone hyperacetylation affects G2/M cell cycle transition
**Patents**

**Patents Granted in Australia, US and Europe**
- Modified papillomavirus L2 protein and VLPs formed therefrom
- Recombinant papillomavirus L2 (Hexahis)
- Subunit Papillomavirus vaccine and peptides for use therein
- Variants of Human Papillomavirus antigen
- Papillomavirus polyprotein constructs

**Patents Granted in Australia and Europe**
- Papillomavirus vaccine
- Patents Granted in the US
- Improved method for protein expression
- Patent Applications in Australia, US and Europe
- Nucleic acid sequence and method for selectively expressing a protein in a target cell or tissue
- Method and polynucleotides for determining translational efficiency of a codon
- Patent Applications in Australia, US
- Polynucleotide and method for selectively expressing a protein in a target cell tissue of a plant
- Treatment of papillomavirus infections

**Patent Applications in Europe**
- Polynucleotide sequence of HPV16 genome
- DNA sequence and papillomavirus vaccine
- VLPs from L1 alone

**Patent Applications in Australia**
- Novel compositions and uses therefore

**Patent Applications in US**
- Method of constructing a synthetic polynucleotide
- Method of making a genetically modified mammal
- Expression system
- A method of optimizing gene expression

**Provisional patent**
- Immunomodulating compositions, processes for their production and uses therefore

**Financial Support**

**CURRENT NHMRC**
- $70,000 A Phase 1B trial of specific immunotherapy for recurrent respiratory papillomatosis (IH Frazer)
- $106,965 Array WoRx-e microarray scanner system (IH Frazer)
- $80,000 CTL avidity as a determinant of the mature, antigen specific immune repertoire (G Leggatt)
- $66,161 Dendritic cell function migration and modulation in a murine model of inflammatory arthritis (R Thomas)
- $85,000 E2F inhibitors as anti cancer agents for squamous cell carcinoma (NA Saunders)
- $160,000 Effective immunotherapy for HPV associated cervical cancer precursor lesions (IH Frazer)
- $100,000 2 Phase cdk2/cyclinA co ordinates multiple pathways in G2/M progression (B Gabrielli)
- $177,500 HPV and cervical carcinoma: signalling and clinical responses to interferons (N McMillan)
- $125,000 Immunoregulatory immune responses to a peripherally presented antigen, IH Frazer
- Induction of antigen specific tolerance through inhibition of RelB function in dendritic cells, R Thomas, NHMRC, $140,000
- $70,000 Optimising immunity towards cancers by vaccination (GJP Fernando)
- $69,985 Study of papillomavirus DNA encapsidation and formation of infectious virions, (KN Zhao)
- $66,661 The melanoma susceptibility gene product p16 functions in a uv-induced cell cycle checkpoint in human skin, B Gabrielli,
- $80,761 The role of CD4+ T helper cells in the generation maintenance and activation of a long lasting anti tumour CTL effect (GJ Fernando)
- $10,312 The role of TAP and MHC Class 1 expression in the response to melanoma immunotherapy using autolgous dendritic cells (R Thomas)
- $84,000 Zeiss cell observer video microscopysystem (B Gabrielli)

**CURRENT OTHER SOURCES**
- $160,000 Role and regulation of cdc25 phosphatase activity in mitosis, B Gabrielli, ARC
- $71,512 Blockade of DC function in RA: the role of the anti-inflammatory cytokine IL-10 and regulatory T cells, R Thomas, Arthritis Foundation Queensland and NHMRC
- $120,000 Chemotaxis, migration and antigen presentation by DC in a murine model of RA, R Thomas, Arthritis Foundation Qld and NHMRC
$28,500 Characterisation of a TGF Beta1 independent but SMAD7 dependent pathway regulating squamous differentiation, NA Saunders, Assoc. for International Cancer Research

$224,699 A Phase 1B trial of virus like particle immunotherapy for HPV associated infection, IH Frazer, Cancer Research Institute

$90,000 Genotype specific and genotype cross reactive cell mediated immunity to VLP based papillomavirus vaccines, IH Frazer, Cancer Research Institute

$81,420 Development of a differentiation therapy for head and neck cancer, NA Saunders, Garnett Passe

$50,000 Identifying novel therapeutic targets for skin cancer therapy, NA Saunders, Lions


$10,000 A skin graft model of immunotherapy for cervical cancer, IH Frazer, Princess Alexandra Hospital Foundation

$10,000 CTL avidity as a determinant of the mature, antigen specific immune repertoire, GR Leggatt, Princess Alexandra Hospital Foundation

$5,950 Cytotoxic T lymphocyte responses to papillomavirus major capsid proteins, XS Liu, Princess Alexandra Hospital Foundation

$10,000 Dendritic cell function, migration and modulation in a murine model of inflammatory arthritis, R Thomas, Princess Alexandra Hospital Foundation

$10,000 E2F inhibitors as anti cancer agents for squamous cell carcinoma, NA Saunders, Princess Alexandra Hospital Foundation

$10,000 Induction of antigen specific tolerance, BJ O’Sullivan, Princess Alexandra Hospital Foundation

$10,000 Role of PKR in chronic lymphocytic leukaemia, NA McMillan, Princess Alexandra Hospital Foundation

$10,000 tRNA abundance and gene expression in mammalian cells, KN Zhao, Princess Alexandra Hospital Foundation

$70,000 Mitotic regulation of the RAS/RAF/MEK/ERK pathway, B Gabrielli, Qld Cancer Fund

$34,538 Development of vaccination strategies against EBV associated nasopharyngeal carcinoma using latent membrane protein 1 (LMP1), R Thomas, Uni of Qld

RESEARCH DEVELOPMENT

$1,500,000 Codon usage as a means of targeting genes to epithelial cancer, IH Frazer, UniQuest

$16,000 Virus like particles as a delivery system to the MHC class I pathway of DC, Meng Yong Yan, UQ International Scholarship,

Publications

JOURNAL PUBLICATIONS


Fernando GJP, Khammanivong V, Leggatt GR, Liu WJ, Frazer IH (2002) The number of long lasting functional memory CD8 T cells generated does not depend on the effector burst size but on the nature of the initial non specific stimulation 32: 1541-1549


**Lectures and Presentations**

IH Frazer

International:

February Virology Update 2002 – Whistler, BC – invited Keynote speaker

March Papillomavirus Workshop, Bangkok – invited Keynote speaker

June International Colposcopy Conference – Barcelona – Invited Lecture

July NIH consensus conference on Tumour Vaccines – Invited Lecturer

September – Medical Conference, Dunkeld, Scotland, Invited Lecturer

September – Cancer Research Institute, Tumour Immunology conference, New York, Invited Lecturer.


October – Bill Gates Foundation, Seattle, Invited Lecturer

November – Netherlands Academy of Science – Keynote Lecturer, Amsterdam


Centres for Health Research
Plus local meetings in Perth, Canberra, Melbourne, and Sydney.

**N McMillan**

**Invited Presentations**

Quantitative PCR Symposium, QIMR.

Sir Albert Saksisci Virus Research Centre, Brisbane.

EMBO Workshop: Structural Biology of Small DNA Tumour Viruses, Siena, Italy.

Australian Virology Group Meeting, Frazer Island.

**Lectures**

University of Queensland Dept of Microbiology

MICR3002 course

**Awards**

**N McMillan**

International Union Against Cancer Fellowship

**Post Graduate Students**

Lilana Munoz, Ph.D, in progress

Daniel Clarke, Ph.D, commenced 2002

Tom Fothergill, Ph.D, commenced 2002

Mr Andrew Burgess, PhD in progress

Maggie Serepko, PhD, completed 2002

Claudia Popa, PhD, completed 2002

Mengyong Yan, PhD, in progress

Simei Ng, PhD, in progress

Angus Thompson, PhD, in progress

Aaron Irving, B.Sc. Hons, completed 2002

Ms. Robyn Warrener, Honours, completed 2002

**Public Service Relevant to Research**

**Professor IH Frazer**

1997- present, 2nd year Curriculum Committee

GMC ( esp intercalated MD PhD Degree)

1995-present , University Animal Committee

1992-, (inc 2002, Member and Chair,

RGICs/DACs for NHMRC)

1993- present, Member ASI education committee,

1998-, Member, WHO panel on HPV vaccines

1998-, Member, NIH advisory panel on PV vaccines,

1999-present, Asia Oceania Representative – International Papillomavirus Society,

2000- present, Regional Editor, “Virology”,

2001- present, Chair, Medical and scientific advisory committee, QCF

2001- present, Member, The Cancer Council of Australia,

2001- present, Member, NHMRC working party on Cervical Cancer prevention ,

2001- present. Member, Bill Gates foundation advisory panel on vaccines ,

Regular speaker at Lions clubs and other community groups

**Dr R Thomas**

1998-present, Performance appraisal academic and general lab staff: 1998 personal system developed to give staff feedback, 1999 official appraisal forms

2001-present, OGE mentorship program

2002, Call for and assess grants for CCRE program ($2m each)

2002-2003, Panel review of grants for discipline of inflammation and pathology

2000 – present, Team leader, paper reports for Arthritis Research – write regular reports on papers of interest to the field of rheumatology

1998 – present, Primary reviewer for Journal of Immunology - approximately two manuscripts per month


1995 – present, Reviewer NHMRC grants - approximately six grants per year

1995 – present, Ad hoc reviewer for approximately seven other granting bodies – approximately six grants per year

1994 – present, Media comment – one to two times per year on rheumatoid arthritis prognosis, treatment and research, and on tumor immunotherapy

1994 – present, Organised scientific program for ARA annual meeting 1997, oversee scientific program organisation for annual meetings from 1998-2000

2000 – present, Member, working party for ARA research and education fund - Develop and implement guidelines for ARA research and education fund

1999 – present, Seminar Program Coordinator, Princess Alexandra Hospital Research Division - Organise, advertise and look after weekly speakers

1999 – present, Postgraduate student speaker meeting coordinator - Organise meetings of postgraduate students on Princess Alexandra Hospital campus with seminar speakers
The Centre for Primary Health Care was established to help communities respond to health needs. It advances the ability of health systems, communities and individuals to effectively respond to health needs through the application of primary health care principles. The principles applied to advance health include consumer and community participation, self management and reliance, intersectoral collaboration and partnerships, prevention, health promotion and integrated care. The principles require the search for a balance between macro and local needs and between short and longer-term gains in health, recognition of the inequalities in health between groups and in access to policy development and resource allocation processes.

Staff

Associate Professor Robert Bush (Director from September 2002)
Professor Ann Taket (Visiting Professorial Fellow – South Bank University – UK)
Dr Maria Donald
Dr Judith Murray

Dr Jo Dower
Dr Fran Boyle
Ms Allyson Mutch
Ms Julie Dean
Ms Trish Wilson
Ms Rebecca Farley

Current Research Activities

PHERP Innovation Project to Develop and Co-ordinate a Graduate Certificate in Mental Health Promotion, Integrated with Systematic Workforce Development Initiatives. In collaboration with Department of Psychiatry, University of Queensland; and Department of Public Health, Flinders University of South Australia.

This innovative National initiative will involve the development of a Program for a Graduate Certificate in the field of Mental Health Promotion. The Program will comprise a Graduate Certificate whose subjects can be offered as part of other relevant postgraduate programs. A key feature of the Program is that it is designed to be integrated with Workforce Development Strategies and offered to agencies or service systems as part of a coordinated package of skill and knowledge development. This would include the investigating and piloting of a Mental Health Promotion Network. It is intended that the Network would build collaboration with Auseinet (The Australian Network for Promotion Prevention and Early Intervention for Mental Health) and use their web page as a Portal for network development activities. It is envisaged that the Network would comprise a broad range of health, community service and other workers as well as interested parties involved in Mental Health Promotion. The Network would provide them with the opportunity to develop models of best practice and communicate results of Mental Health Promotion strategies. The Network would also provide access to further opportunities for training and development.

The Program draws on the interdisciplinary strengths of both collaborating universities and will seek to build further collaborations over the funding period. The Program is designed based on the following modules; Suicide Prevention; Primary Mental Health Care; Understanding Loss And Grief Across The Life Cycle; Mental Health Promotion; Indigenous Social and Emotional Well-Being; Mental Health Promotion; Intervention Strategies Across the Life Span; Concurrent Drug and Mental Health Problems. These modules will be developed for dissemination in an on-line format (using Web-CT, a platform common to both Universities) and revised to incorporate current evidence-based research and policy initiatives. The Program of studies will be provided through a flexible web-based environment, maximising accessibility and tailored learning.

Consumer self-rating outcome measures for mental health services: Comparative analysis of
tools. In collaboration with Siggins Miller Consultants.

The development of a multi-strategy health promotion project that promotes resiliency in children of primary school age. Submitted in collaboration with: Faculty of Health Sciences, The University of Queensland (Schools of Population Health, Human Movement Studies, Health & Rehabilitation Sciences, School of Medicine [Psychiatry]).

Faculty of Social and Behavioural Sciences, The University of Queensland (Parenting and Family Support Centre, Schools of Psychology, Education and Social Sciences).

Government (Queensland Health, Education Queensland, Department of Families, Brisbane City Council, Centrelink, Queensland Police, Department of Sport and Recreation).

Association of Independent Schools and Catholic Education Queensland.

Local NGOs (including church groups, St. Vincent de Paul, Salvation Army, sporting organisations, Scouts, Brigades and Chambers of Commerce).

Abused Child Trust.

Gatehouse Project, University of Melbourne.

Health Promoting Schools, University of Sydney.

University of Queensland Promoting Women Fellowship.

This fellowship is sponsored by the University of Queensland Staff Development Committee and provides Maria Donald with full release from teaching and administrative duties for 1st semester 2003. The fellowship is valued at $15,000. Maria will concentrate on the preparation of three peer-reviewed manuscripts during the 6-month period of the Fellowship.

University of Queensland Early Career Researcher Grant application for Ten Year Follow-up of intervention program for families bereaved by infant death.

Review of current practice in the management of clients with co-morbid mental health and substance use disorders in tertiary care settings. In collaboration with Siggins Miller Consultants and the Queensland Alcohol and Drug Research and Education Centre, University of Queensland.

The project involved a scoping study to identify current practice in the management of clients with co-morbid mental health and substance use disorders in tertiary care settings. The Project is funded by the Commonwealth Department of Health and Ageing and the terms of reference involved are:

Reviewing international and national literature to identify best practice in the management and care of clients with co-morbid mental health and substance use disorders in tertiary care settings. A critical analysis of the research was conducted in order to identify its quality, relevance and strength of evidence. The literature review assessed the generalisability of the results of earlier and overseas research to the contemporary Australian setting. The Centre for Primary Health Care took the lead role on this component of the project.

In consultation with Government, non-government (for profit and not-for-profit) service providers, and other stakeholders such as consumer and carer groups, a scoping study of current practice in Australia was undertaken to:

- Identify elements of the service delivery system that are in line with evidence and that enhance the skills and confidence of practitioners and improve outcomes for clients.
- Identify the extent to which services in Australia incorporate elements of best practice and propose strategies for improving best practice in this area.

National Population Health in Primary Health Care Education Research and Practice Network in collaboration with Flinders University, UNSW, and La Trobe University. The Centre for Primary Health Care completed the targeted review of the literature concerning effective information exchange for the primary health care workforce. The review:

- Identified key features of best practice relevant to information exchange among members of the primary health care sector;
- Reviewed a selection of existing websites, clearinghouses, and networking projects relevant to the primary health care sector; and
- Provided an overview of views and experiences of members of the primary health care workforce in relation to their current and ideal sources and strategies for information exchange.

The Centre for Primary Health Care hosted the Brisbane based workshop to exchange information in relation to the project with local primary health care providers

Performance Indicators and Outcomes for the Early Intervention component of the National Action Plan for Promotion, Prevention and Early
Intervention for Mental Health 2000. In collaboration with Professor Sue Spence, Department of Psychology, University of Queensland.

This project was an extension of the project that the Centre for Primary Health Care was involved in to develop the performance indicators and outcomes and the evaluation frameworks for the National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000.

The original Action Plan did not include early intervention therefore this project involved the development of specific Performance Indicators and Outcomes for the early intervention component of the Action Plan. The project involved updating the relevant databases and measurement tools for early intervention in mental health and the refinement of the model that was proposed for the development of reliable Performance Indicators and Outcomes. The final report has been submitted to the Commonwealth Department of Health and Ageing.

Enhancement of Community Capacity Index

The Community Capacity Index and Community Capacity Index Manual have been printed and are now available for sale through the Centre for Primary Health Care.

Training workshop materials on the use of the Community Capacity Index are being finalised.

Community Public Health Planning in Rural and Remote Areas

This project was completed in June 2002 with the final report submitted to Queensland Health. During the first half of 2002 completion of the project involved visits to rural communities, critical appraisal of event logs, training workshops compilation of data and analysis as well as the writing of the overall project summary including an evaluation framework that can be utilised to guide the evaluation of other local community capacity building initiatives.

Financial Support

Community Public Health Planning in Rural and Remote Areas. Queensland Health. $28,630

Enhancement of the Community Capacity Index

PHERP Innovation Project to Develop and Co-ordinate a Graduate Certificate in Mental Health Promotion, Integrated with Systematic Workforce Development Initiatives.

The development of a multi-strategy health promotion project that promotes resiliency in children of primary school age.

University of Queensland Promoting Women Fellowship. University of Queensland $15,000

UQ Early Career Researcher Grant application for Ten-Year Follow-up of intervention program for families bereaved by infant death. University of Queensland $26,000

Review of current practice in the management of clients with co-morbid mental health and substance use disorders in tertiary care settings. Siggins Miller Consultants $34,000.


Postgraduate Students

Julie Dean, PhD
Allyson Mutch, PhD
Amanda Wright, PhD
Sue Coglan, PhD
Elizabeth Forster, PhD
Narelle Dickensen, MPhil
Rachel Cole, PhD
Romana Madl, PhD

ALL the GHSP Students

Publications

BOOKS AND BOOK CHAPTERS


Kuipers, P., Foster, M., Carlson, G. and Moy, J. (accepted for publication) Classifying client goals in tertiary ABI rehabilitation: A taxonomy for profiling service delivery and conceptualising outcomes. Disability and Rehabilitation.


Murray, J.A. and Roche, A. (Submitted) Loss and Grief: A Little Addressed Dimension in Problematic Substance Use.


PUBLICATIONS IN PRESS


Scott, D., Valery, P., Boyle, F.M., Bain, C. (Submitted) Does survey research into sensitive areas do harm? Experiences of research participation following a child’s diagnosis with Ewing’s Sarcoma. Medical Journal of Australia.

Turner, C.T., Boyle, F.M., O’Rourke, P.K. (submitted) Mothers’ health post-partum and their patterns of seeking vaccination for their infants. International Journal of Nursing Practice. (accepted for publication, 04/11/02).

Turner, C.T., Boyle, F.M., O’Rourke, P.K. (Submitted) Mothers’ health post-partum and


**PUBLICATIONS SUBMITTED**


Murray, J.A. and Roche, A. (Submitted) Loss and Grief: A Little Addressed Dimension in Problematic Substance Use.

**REPORTS**


**Conference Presentations**


The presentation was well attended, with approximately 50 people present. These included individuals from Australia, Canada, the US and the UK. A number of people expressed particular interest in linking with the Centre and developing synergies in research between their own institutions and the Centre for Primary Health Care and the School of Population Health more broadly. In particular, Dr Terry Mitchell and Dr Lynne Baillie from the Canadian Breast Cancer Foundation Community Research Initiative, Toronto, Ontario, were interested in the application of the Community Capacity Index to the evaluation of their community based health promotion projects. Similarly, Dr Shillis from the University of Texas and Dr Piat from McGill University were interested in tools for the measurement of community capacity and related concepts. Finally, Helen Nikolas, from the South Australian Government Health Department, was interested in the frameworks that the Centre uses for the evaluation of complex community-based projects.

Mutch, A., Dean, J. and Boyle, F. Using Medical Education to Develop Referral Pathways from GPs to the Community. Presented at the General Practice and Primary Health Care conference, Melbourne, 2002

The conference included keynote presentations from the UK and the US, as well as an informative paper delivered by the Cochrane Collaboration's Consumer Representative. The main purpose in attending the conference was to present a paper outlining the way in which the Building Partnerships Program promotes the development of referral pathways between medical professionals and community based organisations. The paper was well received by an audience of health consumers and general practitioners and will be drafted into a paper for publication later in the year.


Boyle, F. M., Mutch, A. J. and Dean, J. H. (2002). The Building Partnerships Program: SANDS Contribution to Community-Based Medical Education. SANDS Australia National Conference, October 4-6, Brisbane.


Queensland Clinical Trials Centre-Biostatistics

The Queensland Clinical Trials Centre (QCTC) was established in late 2001 as a joint venture between the Princess Alexandra Hospital and the University Of Queensland. Its aim is to improve health by designing and managing clinical trials that provide high-quality evidence about the value of health interventions. The QCTC incorporates the former biostatistics unit, and continues to provide statistical advice on the design and analysis of research projects to all researchers within the Princess Alexandra Hospital.

The QCTC staff have expertise in the design, conduct and analysis of clinical trials, and are committed to promoting randomised controlled trial methods as a means of generating the highest quality evidence about the value of new and existing interventions, including drugs, surgery, devices, and behavioural interventions.

The unit also aims to add value to clinical trials projects by the development of associated statistical methods, provision of a high standard of data management and randomisation services, and educational activities in clinical trials methods and statistics. The Centre offers statistical advice to researchers and students, and regularly contributes to educational sessions on clinical trials methods and statistics.

Staff
Elaine Beller, Director, Biostatistics
Jan Alexander, Data Manager

Current Research Activities

CLINICAL TRIALS
Randomised study of radiotherapy or chemoradiotherapy to palliate symptoms of advanced oesophageal cancer. (With J Harvey - Radiation Oncology, Princess Alexandra Hospital and M Pennimen, Royal Adelaide Hospital)

Multi-centre study identifying impacts of an assessment and care planning protocol for frail elderly patients in acute care. (With L Gray – Academic Unit in Geriatric Medicine, Princess Alexandra Hospital and University of Queensland, B Nair, John Hunter Hospital, and co-investigators from the Mater Hospital.)

Timing of androgen deprivation in relapsed or non-curable prostate cancer patients. (With G Duchesne, H Gurney, J Denham, and A Stapleton – Trans-Tasman Radiation Oncology Group)

Optimising preterm infant outcomes: A RCT to evaluate two screening and surveillance methods. (With P Colditz, M Pritchard – Perinatal Research Centre RBWH, D Tudehope, C Jackson – Mater Hospitals)

Trial comparing chemo-radiotherapy versus radiation in the treatment of bladder cancer. (With K Gogna, E Walpole – Princess Alexandra Hospital, G Duchesne, E Nicol, M Berry – Trans-Tasman Radiation Oncology Group)

RCT of physiotherapy and corticosteroid injections for lateral epicondylalagia. (With B Vincenzino, M Yelland – University of Queensland)

The physiotherapy management of chronic whiplash associated disorders (WAD II): a randomised clinical trial (With G Jull – University of Queensland)

Randomised placebo-controlled clinical trial of zinc gluconate nasal gel in the treatment of common cold. (With C Del Mar and P Glasziou – University of Queensland)

OTHER RESEARCH
Cost-effectiveness study for the ADVANCE clinical trial. (With P Glasziou – University of Queensland)

The prevalence of functional and psychosocial problems in the older hospital population. (With L Gray, I Scott, A Wilson, GI Carpenter)

Statistical consulting for Princess Alexandra Hospital researchers in various fields, including oncology, haematology, hepatology, dietetics, geriatrics, nursing, diabetes & endocrinology, pharmacy, cardiology.

Financial Support
ADVANCE cost-effectiveness study. Institute for International Health & Servier Laboratories, 2002 - 2006. In collaboration with Professor Paul Glasziou (principal investigator), School of Population Health, University of Queensland.

OTHER SUPPORT
The Princess Alexandra Hospital supports the QCTC through salary support for the Director, Biostatistics.
Publications

Abstracts Published

Lectures and Presentations
Princess Alexandra Hospital Postgraduate Students’ Group. Invited presentation 17/04/2002. ‘Biostatistics for Clinical Research’

Mater Medical Research Institute. Invited presentation 10/05/2002. ‘Biostatistics for Clinical Research’

Princess Alexandra Hospital Oncology Registrars Training Weekend. Invited presentations 18-19/05/2002. ‘Clinical Trials Design Principles’ and ‘Biostatistics and Clinical Trials’


Princess Alexandra Hospital Research Seminar 13/11/2002. ‘Sample size for Research Studies’

Post Graduate Students
Microbiology Department

The Queensland Health Pathology Services (QHP) Microbiology Department at Princess Alexandra Hospital provides laboratory diagnostic and consultative services in clinical microbiology to Princess Alexandra, QEII, Logan and Redland Hospitals. The laboratory holds a Therapeutic Goods Administration licence for tissue transplantation screening and provides screening services for all Queensland Health tissue banks and for Queenslanders Donate. It also has special expertise in identification and typing of multi-resistant bacteria and in antimicrobial susceptibility testing. Members of staff participate in teaching activities for the University of Queensland, Griffith University and the Royal College of Pathologists of Australasia.

The major research activities in the laboratory relate to antimicrobial resistance, multiresistant organisms and hospital infection. Collaborative research is undertaken with the Australian Group for Antimicrobial Resistance and the CRC for Diagnostics. The Department also participates in a number of collaborative studies funded by the pharmaceutical industry.

Collaborative research into community-acquired MRSA has included development of novelle typing techniques and investigation of local epidemiology. Application of nucleic acid amplification techniques to identification of multiresistant organisms in the clinical laboratory is being investigated.

Staff
Dr Graeme Nimmo, Director
Jacqueline Harper, Chief Scientist
Robert Gibb, Supervising Scientist
Wayne Monaghan, Supervising Scientist
Ken Stallard, Supervising Scientist
Jacqueline Schooneveldt, QA / Research and Development Scientist
William Hope, Registrar

Current Research Activities

CLINICAL TRIALS
BMS28284756 – Bristol Myers Squibb’s Complicated skin and soft tissue infections (Protocol Ai464-025)
Pfizer’s Randomized, open label, comparative multicenter study of voriconazole versus conventional amphotericin B followed by fluconazole in the treatment of candidaemia in non neutropic subjects (Protocol 150-608)
Pharmacia’s Linezolid versus vancomycin/oxacillin/dicloxacillin in the treatment of catheter-related Gram-positive bloodstream infections (Protocol M/1260/0080)

OTHER RESEARCH
Bristol Myer’s Squibb SENTRY study (International)
Merck’s Global Study for monitoring antimicrobial resistance trends (SMART) study
Australian Group on Antimicrobial Resistance (AGAR) Annual studies S.pneumoniae, Viridans streptococci, S. aureus and bactermia caused by enterococci. Other periodical studies include Gram negatives (E. coli, Klebsiella spp. And Entewrobacter spp.) and more detailed studies on enterococci.
The National VRE Network (NaVREN) Study. We are the Queensland reference laboratory for the collection and study of vancomycin resistant enterococci (VRE) and work in conjunction with the National reference laboratory, The Women’s and Children’s Hospital in Adelaide
Pfizer’s Australian Candidaemia Study (Protocol number FCA-0-1)
Home continuous infusion timentin study (ticarcillin/clavulanic acid) for the Infection Management Services Southern Queensland, princess Alexandra Hospital, Brisbane

Financial Support

GRANTS
$8000 consumables only. Development of Vancomycin Resistant Enterococci (VRE) PCR assay. Funded by Queensland Health Pathology & Scientific Services (QHPS) Promoting Excellent Performance (PEP) awards. Duration: 12 months. (Jacqueline Schooneveldt)

OTHER SUPPORT
$11,000. SENTRY Study of antimicrobial resistance, Bristol Myer Squibb, Annual (J Schooneveldt, G Nimmo)
**Publications**

**ABSTRACTS PUBLISHED**


G Nimmo. MRSA community strains – where are they? 8th Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, 1-5 December 2002, Final Program and Abstracts:50.


J Etienne, F Vandenesch, G Lina, C Berchiche, T Naimi, G Nimmo, H Heffernan, M Bes. Role of Panton-Valentine leukocidin in the community-acquired infections due to methicillin-resistant Staphylococcus aureus.10th International Symposium on Staphylococci and Staphylococcal Infections, Tsukuba Ibaraki, Japan, 16-19 October, 2002.

J Harper, G Nimmo. Overview of microbiology testing in QHPS. Microbiology Australia 23 (4) (2002 Australian Society for Microbiology Annual Scientific Meeting, Melbourne, 29 September – 3 October), abstract P08.11.


R Marriott, J Schooneveldt. Genotyping the 'motile' enterococci. Antimicrobials 2002 (Meeting of the Australian Society for...
ARTICLES ACCEPTED FOR PUBLICATION
G. Nimmo. Antimicrobials 2002, the Annual Scientific Meeting of the Australian Society for Antimicrobials, Sydney, 28 February-2 March 2002: “Resistance to Quinolones”.
G. Nimmo. 8th Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, 1-5 December 2002: “MRSA Community Strains – Where Are They?”

Public Service Relevant to Research
Dr G.R. Nimmo
Member of the editorial board of ‘Pathology’
Deputy Chairman of the Australian Group for Antimicrobial Resistance
Member of the national executive committee of the Australian Society for Antimicrobials
Member of the organising committee of 8th Western Pacific Congress on Chemotherapy and Infectious Diseases.
Division of
Clinical Support Services
Acquired Brain Injury Outreach Service

The Acquired Brain Injury Outreach Service (ABIOS) is a specialist community based rehabilitation service for people with acquired brain injury (ABI), for carers and for workers assisting people with ABI. The primary aim of the service is to facilitate successful community integration for people with ABI. It also provides training and consultancy to service providers and carers.

The service also conducts research and development activities to improve outcomes for people with ABI and their families. The primary focus of ABIOS research and development is the measurement and enhancement of community integration of people with ABI. This encompasses investigation of community based models of service delivery, service evaluation, psycho-social outcomes and enhancing psychosocial supports of people with ABI.

Staff
Mr Raymund Quinn, Manager
Dr Pim Kuipers, Research & Development Officer
Ms Tara Catalano, ARC funded Stroke Project

Current Research Activities
Developing Community Based Rehabilitation (CBR) through Participatory Rural Appraisal (PRA). A rural research pilot.

Analysis of the content and themes of the rehabilitation goals of people with ABI in a community based service. (Collaboration with the Department of Occupational Therapy, University of Queensland).

Responding to the psychological and social needs of people with stroke: Integrating theory and practice in post-discharge rehabilitation (Collaboration with Centre for Human Services, Griffith University and Brisbane Southside Central Division of General Practice).

Developing a service evaluation strategy for community based ABI rehabilitation (ABIOS)

Comparison of outcome measures for community based ABI rehabilitation (Collaboration with the Department of Occupational Therapy, University of Queensland and Rehabilitation Studies Unit, University of Sydney).

The efficacy of a community based physical activity intervention in improving the health of people with ABI (Collaboration with Department of Human Movement Studies, University of Queensland)

Financial Support
$7,000 CONROD Developing, Community Based Rehabilitation (CBR) through Participatory Rural Appraisal (PRA). A rural research pilot.

Princess Alexandra Hospital Foundation.

Analysis of the content and themes of the rehabilitation goals of people with ABI in a community based.

$75,000 ARC. Responding to the psychological and social needs of people with stroke: Integrating theory and practice in post-discharge.

$10,000 Princess Alexandra Hospital Foundation.

The efficacy of a community based physical activity intervention in improving the health of people with ABI.

Publications
ARTICLES ACCEPTED FOR PUBLICATION


Public Service Relevant to Research
Dr P Kuipers
Member, Princess Alexandra Hospital Allied Health Research Committee

Reviewer, Australian Journal of Rural Health
Audiology Department

Audiology has developed a significant presence in clinical research and teaching. The number of Audiology projects and student placements have both increased six fold in the past five years. This activity has strengthened the close links with the School of Health and Rehabilitation Sciences at the University of Queensland, and in 2000 resulted in the formal establishment of a conjoint position.

The research focus strongly reflects the clinical activity within the Department, and in particular the specialist services provided to the Brain Injury Rehabilitation Unit and the Ear Nose and Throat (ENT) Department. Main areas of research include enhancing the early diagnosis of Acoustic Neuromas that are most likely to grow and thus require intervention, studies in Traumatic Brain and access issues for the Deaf and Hearing impaired patients. A number of collaborative research projects investigating audiological implications of traumatic brain injury have significantly improved patient treatment. The opening in 2001 of a co-located audiology clinic with the ENT Department has further facilitated joint projects.

Staff
Evelyn Towers, Director of Audiology
David Brown-Rothwell, Conjoint Lecturer in Audiology
Tegan Keogh, Audiologist/ PhD Student
Dr Julie Thomason, Audiologist
Dr Wayne Wilson, Lecturer in Audiology

Current Research Activities
A comparison of the hearing outcomes from different surgical approaches to cerebellopontine angle tumours.
Wavelet analysis of the auditory brainstem response during acoustic tumour removal.
Wavelet analysis of the auditory brainstem responses: theoretical and clinical implications.
Assessment of Noise within Intensive Care.
The Role of Audiology in the Differential Diagnosis of Acoustic Neuromas: Detection and Management.

Financial Support
$1,000 from the Princess Alexandra Hospital, Private Practice Research and Education Trust for the project titled “Improved detection of Small Acoustic Tumours using Discrete Waveform Transform analysis of retrospective auditory brainstem responses patient data.” Awarded to D Brown-Rothwell.

Publications
ABSTRACTS PUBLISHED

Lectures and Presentations
Thomason, J. (2002) I can hear you, but can’t understand you. Princess Alexandra Hospital Geriatric and Rehabilitation Unit Nursing Seminar.

Post Graduate Students
Frances Crombie, MAudS, Graduated,
Rosalee Kendal, MAudS, Graduated,
Vithagna Khammanivong, MAudS, Graduated,
Grace Lin, MSc, Thesis

Public Service Relevant to Research

David Brown-Rothwell
Chair, Princess Alexandra Hospital Allied Health Research Committee
Member, Princess Alexandra Hospital Research Committee
Member, Princess Alexandra Hospital Week Committee
Member, Princess Alexandra Hospital Cancer Collaborative Group

Member, Princess Alexandra Hospital Allied Health Research Centre Steering Committee

Dr Julie Thomason
Queensland State President Audiological Society of Australia.

Evelyn Towers
Member Panel of Experts Committee on Access Issues, Audiological Society of Australia.
Occupational Therapy Department

The Occupational Therapy Department provides clinical services in the areas of acute care, spinal injury rehabilitation, geriatric assessment and rehabilitation, and brain injury rehabilitation. There is a strong focus on evidence based practice, and all areas are involved in establishing clinical protocols based upon available evidence. Research activity within the Department has centred on evaluating a range of assessments used by occupational therapists in clinical practice. These include cognitive assessments for use in the evaluation of cognitive function in aging populations, the assessment of prospective memory failure, post-traumatic amnesia and self-awareness following brain injury, and the measurement of joint stiffness in the hand. Other research has concentrated on evaluating interventions specifically in the area of memory rehabilitation following brain injury. Research links have been established with the University of Queensland through the appointment of a conjoint lecturer.

Undergraduate and graduate entry masters occupational therapy students are supported in the department for clinical placement and fieldwork experiences from the University of Queensland and James Cook University. Staff are involved in clinical teaching at the University of Queensland (UQ) and support several honours students conducting clinical projects at the hospital each year, as well as postgraduate research students.

Staff

SENIOR STAFF
Mary Whitehead, Director
Dr Jenny Fleming, Conjoint Lecturer, University of Queensland and Princess Alexandra Hospital
Elizabeth Caldwell, Rehabilitation
Mary Kayssar, Rehabilitation

Janelle Griffin, Rehabilitation
Glenda Price, Spinal Injuries Unit
Mary Little, Acute Services
Joanne O’Sullivan, Acute Services

OTHER RESEARCHERS
Nicole Williams
Nadine Roche
Anna Wiemers
Celeste Glasgow
Collette Zemljic
Melissa James

Current Research Activities

CLINICAL TRIALS
Rehabilitation of prospective memory problems in individuals with traumatic brain injury. D Shum (Griffith University), J Fleming (UQ/PAH), J Strong (UQ), J Connell (PAH), J Griffin (PAH)

OTHER RESEARCH
The readability and comprehensibility of Occupational Therapy written materials for elderly people – J Griffin
Long duration spinal cord injury – K Pershouse (SPOT), D Amsters (SPOT), G Price (PAH)
Measurement of joint stiffness in the hand: reliability and validity of torque angle curves. C Glasgow
Validity of Cognitive Screening Tests in an Aging Rehabilitation Population. SBryant (UQ Honours student), M Kayssar, J Fleming(UQ/PAH)
Objective and behavioural assessment of the emergence from post-traumatic amnesia. E Doig, N Williams, A Weimers, J Fleming
Assessment of community integration in acquired brain injury: Comparison of the Sydney

Princess Alexandra Hospital Foundation
Objective and behavioural assessment of the emergence from post traumatic amnesia. (Doig E, Williams N, Weimers A, Fleming J).

Using occupation to facilitate self-awareness after acquired brain injury. J Fleming (UQ/PAH), S Lucas (UQ Honours student), S Lightbody (UQ)

Psychosocial Reintegration Scale (SPRS) and the Community Integration Questionnaire (CIQ). P Kuipers (ABIOS), M.Kendall (SPOT), J Fleming (UQ/PAH), R Tate (Sydney University)
(completed 2002)

Financial Support

Publications


ARTICLES ACCEPTED FOR PUBLICATION


Griffin J, McKenna K, Tooth L (In press) Written health education materials: Making them more effective. Aust Occ Therapy J.


Lectures and Presentations

C Glasgow  “Optimal daily TERT for contracture resolution in mobilising splinting” Presentation at Combined Australian Hand Therapy and Australian Hand Surgery National Conference (Gold Coast, March 2002)

N Williams, A Wiemers  “PTA or the twilight zone?” Presentation at PA Week (July 2002)

N Roche  “Self-awareness of prospective memory failure in adults with traumatic brain injury” Presentation at PA Week (July 2002)

T Robson  Personal experiences of families of children with a traumatic brain injury in the transition from hospital to home” Poster presentation at 10th Annual Scientific Meeting of the Australasian Faculty of Rehabilitation Medicine (Brisbane, 2002)

C Zemljic  Tutorials to second year University of Queensland undergraduate and graduate entry maters occupational therapy students in physical rehabilitation affiliations, Semester 2

J O’Sullivan  Presentation of tutorial series to third year University of Queensland undergraduate occupational therapy students (invited).

Presentation at Queensland State Occupational Therapy Conference (Townsville, September, 2002)

G Price  Lectures to second year undergraduate occupational therapy students on the assessment and management of spinal cord injury.

Post Graduate Students

J Griffin, Master of Occupational Therapy, in progress

Awards to Staff Members

S Davies, new graduate occupational therapist, Mary Rankine Award (UQ) for academic Excellence in 2002.

Public Service Relevant to Research

Dr J Fleming
Member of the editorial board of the journal Brain Impairment.

J Griffin
Lecturer in Occupational Therapy at University of Queensland.
**Nutrition and Dietetic Services**

The Department has 15 dietitians, who provide nutrition services to all inpatients and to outpatients referred through specialised clinics or requiring home enteral nutrition. Malnutrition screening and assessment of all inpatients is a key feature of the clinical role undertaken. The Department provides nutrition support in enteral and parenteral nutrition, a range of nutrition supplements, texture and fluid modifications through our food services and counselling on all aspect of nutrition care. The service also includes an outreach program to Charleville Health Service District, supported by videoconferencing.

The Department’s research focuses on the application of clinical nutrition in the practical care of patients. This includes nutrition support in cancer, management of overweight and obesity in diabetes and hepatitis C virus (HCV), and development and implementation of validated nutrition tools. Staff teach nutrition and dietetic students from Queensland University of Technology, the University of Queensland and Griffith University through lectures and supervised placements in clinical nutrition and food service.

**Staff**

**SENIOR STAFF**
Susan Ash, Manager, PhD, MHP, Dip Nutr Diet, APD
Angela Vivanti, Research and Development Dietitian, M App Sc, Grad Dip Nutr Diet, APD, Professional Doctorate Scholar
Nora Ramos, Senior Dietitian Nutritionist
Winsome Abbott, Senior Advanced Level Dietitian, MSc, Dip Nutr Diet, APD, PhD scholar

**RESEARCH STAFF**
Wendy Davidson, BSc, Grad Dip Nutr Diet, APD, M AppSc scholar
Ingrid Hickman, B HSc (Nutr & Diet), APD, PhD scholar
Marina Reeves (nee Koutoukas), B HSc (Nutr & Diet), APD, PhD scholar

**Current Research Activities**

**CLINICAL TRIALS**
The role of obesity and nutrition in fatty liver disease (I Hickman).
Dark adaptation in vitamin A deficient patients awaiting liver transplant. (W Abbott).
Landmark trial – Modification of arthrogenic risk factors in renal and dialysis patients (N Isobel, D Johnson, T Marwick, W Chang).
FBI - Comparison of a lifestyle and behaviour management program on weight loss and other behavioural indicators, with standard dietetic treatment in the management of overweight and obesity over 12 months. (Ash S, Vivanti A, Dover T, Leong C, Bauer J, Capra S, O’Moore-Sullivan T, Princess Alexandra Hospital and The Wesley Hospital).

**Financial Support**

**GRANTS**
Investigation of the role of obesity and nutrition in Chronic hepatitis C and fatty liver disease. Public Health PhD Scholarship for 3 years. Hickman I


ABSTRACTS PUBLISHED


BOOK CHAPTERS

Lectures and Presentations
Abbott W
Dark adaptation in vitamin A deficient patients assessed for liver transplantation PA Week July

Ash S
Nutrition Intervention in Diabetes. PA Week July

Assessment of malnutrition in Queensland hospitals. Queensland Health and Medical Scientific Meeting 4 and 5 December
Dover T
Lecture to 3rd yr Nutrition and Dietetic Students, Queensland University of Technology (QUT), Nutrition in Renal Disease October

Davidson W
Enteral and Parenteral nutrition Lecture. QUT Nutrition and Dietetic students - 1 August Oncology Unit staff - Allied Health Services in Radiation Oncology - 7 August Nutrition and GIT disease lectures 1 and 2 to QUT dietetic students 4 and 5 September

Hickman I
Weight reduction and maintenance improves biochemical, histological and metabolic parameters in patients with chronic Hepatitis C. Australian Society for Medical Research (ASMR) Postgraduate Students Conference, Brisbane, 7 June, 2002

Koutsoukos MM
Predicting energy requirements in the acutely ill: the need for caution. ASMR Postgraduate Students Conference, Brisbane, 7 June

Smith L, Croaker S
Outreach allied health service using telehealth: A less expensive face-to-face care, or an effective way to improve services to rural areas. PA Week

Vivanti A, Harvey K, Varghese P, Ash S, Capra S, Roberts M
Dehydration prevalence in a Queensland geriatric and rehabilitation unit. Queensland Health and Medical Scientific Meeting 4 and 5 December, 2002.

Ash S, Capra S (Inviter Speaker)
How to get started in research. Workshop DAA National Symposium, Sydney, May 2002.

Ash S (Inviter Speaker)
The Benefits of cognitive behaviour therapy in the management of overweight and obesity. Making a Move on obesity, July, 2002 Diabetes Week Seminar

Evidence based practice in dietetics. Best Practice in Clinical and Community Nutrition and Dietetics, North Queensland DAA Conference, Yeppoon, August

Models of Collaborative Dietetic Research (invited speaker). DAA National Symposium, Sydney May, Brisbane, June

Dover T (Inviter Speaker)
Dietetic Representative. Queensland Health Broadcast Best Practice Guidelines for Type 1 Diabetes in children and adolescents. December

Koutsoukos M (Inviter Speaker)
Predicting energy requirements in the acutely ill: the need for caution. Australian Society for Medical Research (ASMR) Postgraduate Students Conference, Brisbane, 7 June

Smith L (Inviter Speaker)

Vivanti, A (Inviter Speaker)
The drought within – The importance of hydration. Rural and Remote Conference. Goondiwindi, November

Wilkinson S (Inviter Speaker)
Life in the HAART Lane: Nutrition and HIV. Dietitian Association of Australia Professional Development. Brisbane, September 2002

Post Graduate Students
Winsome Abbott, UQ, PhD
Wendy Davidson, QUT, MAppSc
Ingrid Hickman, UQ, PhD
Marina Reeves (nee Koutsoukas), QUT, PhD
Angela Vivanti, QUT, DHlthSc

Awards to Staff Members
Smith L. Dietitians Association of Australia – Presidents Award for Innovation. (Charleville Project)

Public Service Relevant to Research

Susan Ash
NHMRC grant assessor
Assessor PhD Candidature (QUT x 2)
Dietitians Association of Australia (DAA)
Dietetic Standards and Accreditation Advisory Committee
Princess Alexandra Hospital Research Committee
Referee, Australian Journal of Nutrition and Dietetics
Scientific Programs Subcommittee for 21st National DAA Conference.

Angela Vivanti
Princess Alexandra Hospital Health Service
District Allied Health Research Committee
On Referee Register Australian Journal of Nutrition and Dietetics
Scientific Programs Subcommittee for 21st National DAA Conference.

DAA Board Committee Portfolio: Journal and Scientific Publications, Conference Advisory Committee
Physiotherapy Department

The Department of Physiotherapy has approximately 80 staff. Services are provided to all areas of the hospital, with more than 10,000 patient attendances per month. In 2002 the Department provided the largest number of physiotherapy undergraduate, graduate entry and postgraduate placements in Queensland. More than 140 students from the University of Queensland (UQ) and Griffith University completed clinical placements in all workgroups of the Department. The department is a leader in local and national quality activities such as National Allied Health Benchmarking Committee.

Research is an integral part of the Department. A conjoint lecturer position with the University of Queensland established in 2000 and dedicated to performing and facilitating research, is currently held by Dr Brauer. Dr Brauer is responsible for the Movement Analysis Unit at the Geriatric Assessment and Rehabilitation Unit (GARU). The major research theme for the Department is rehabilitation. The Department has specific expertise in and technology to measure changes in balance and gait, particularly in the neurological and geriatric population.

The automaticity of the control of balance is a primary focus area. Traditionally, balance has been viewed as an automatic process requiring few processing resources. Dr Brauer has contributed to the growing body of knowledge that is finding balance and gait to be attention-demanding, with this demand often presenting as postural instability. To extend the understanding of the central dysfunction contributing to poor dual task performance, researchers have several ongoing studies investigating balance and gait ability in clients with known variants of attention disturbances (brain injuries, Parkinson’s disease, stroke, healthy and depressed elders). From this researchers hope to understand what elements of attention are required most for functional movement, and to improve assessment and intervention techniques. Other areas of research include the control of balance (in paediatric and low back pain populations), outcomes following rehabilitation (pain in tetraplegics, balance in stroke patients) and validation of new clinical tests.

Staff

Kathy Grudzinskas, Director
Linda Marsh, Assistant Director
Suzanne Kuys, GARU
Maryann Schubert, BIRU
Sharon Chatterton, Medical/Surgical
Pat Wood, Outpatients

Beth Baird, Spinal Injuries Unit
Brett Baxter, Orthopaedics

RESEARCH STAFF

Dr Sandy Brauer (Physiotherapist PAH / UQ)
Mr Peter Herzig, Research Assistant

Current Research Activities

CLINICAL TRIALS

A RCT of a school-based physiotherapy program to improve motor control in children with and without developmental co-ordination disorder (DCD). Principal Investigators Assoc Professor Y Burns, Dr S Brauer, L Johnston. Collaborators

OTHER RESEARCH

Gait, balance and neuropsychological profile of depressed elderly patients pre and post electroconvulsive therapy. Investigators - Dr P Varghese, Dr S Brauer, A Broome, S Taylor, Dr J Burt.

The role of attention in balance performance in brain injured adults. Investigators - Dr S Brauer, A Broome, C Stone.

The effect of a variety of multiple task on gait alone and cued gait in persons with Parkinsons Disease. R Galletly, Dr S Brauer.

Reliability and validity of the Modified Elderly Mobility Scale. S Kuys, G Mann.

Balance deficits in person with chronic low back pain. N Mok, Dr S Brauer, Assoc Professor P Hodges.

Shoulder pain and dysfunction in acute quadriplegia: A prospective study - S Salisbury.

Determining optimal force plate measures of balance in healthy young adults. H Huseby, Dr S Brauer, P Herzig.

Does a concurrent task affect the sitting balance of LCVA patients differently from RCVA patients? F Manning, Dr S Brauer.

Retraining verticality of sitting balance in CVA patients. Narissa, Dr S Brauer, R Isles.

Queensland Rehabilitation Physiotherapy Seniors Network project to investigate outcomes of stroke patients admitted for rehabilitation. S Kuys, Dr S Brauer.
Outcomes of patients discharged home from the Acute Stroke unit of the PA Hospital. L Cahill, S Kuys.

Tertiary phase intervention to improve gait and balance post TBI. N Low Choy, Dr S Brauer.

Financial Support

GRANTS

$70,000, Financial Markets for Children. A RCT of a school-based physiotherapy program to improve motor control in children with and without developmental co-ordination disorder (DCD).


Publications

Brauer SG, Burns YR (2002). The influence of preparedness on rapid stepping in young and older adults Clin Rehabil 16 (7) 741-748


ARTICLES FOR PUBLICATION


Lectures and Presentations

7th International Australian Physiotherapy Association Congress, Sydney, 25-28 May 2002. (APA Congress)

L Johnston, Y Burns, S Brauer, C Richardson. Postural control and movement performance during voluntary arm movement in sitting and standing in children with and without developmental coordination disorder.


N Low Choy, J Nitz, S Brauer. The relationship between postural stability, age, vision, support surface and falls in women aged 40 to 80: directions for further research.

K Grudzinskas, J Finch, R Sharpe, M Tweeddale. Demand management – A study of ambulatory physiotherapy services in Queensland.


S Brauer, A Broome, S Taylor. Multiple tasking in depressed elders.

L Marsh, S Chatterton. Patient centered treatment-planning new facilities in an acute patient setting (the princess Alexandra hospital experience).


Australian Federation of Rehabilitation Medicine Biennial Conference, Brisbane.


R Hazelton, Schubert M.

Queensland Health and Medical Scientific Meeting, Brisbane (QHMSM).
Kuys S, Mann G, Brauer SG. Validation and reliability of the modified elderly mobility scale.
Grudzinskas K. University/hospital joint appointments – developing partnerships.
Grudzinskas K. Leadership – Self education in times of change.
Kuys S. Acute stroke unit: Princess Alexandra Hospital experience.
PA week 2002.
Suzanne Kuys. Validation of the elderly mobility scale.
UQ undergraduate and Griffith postgraduate physiotherapy degrees. Invited lectures by several staff members.

Post Graduate Students

In progress:
Nicola Mok, PhD, Physiotherapy Dept UQ

Susan Salisbury, Masters of Physiotherapy, Physiotherapy Dept UQ
Tony Johnston, Masters of Occ H & S (QUT)
Brooke Noble, Dip of Business Studies (QUT)

Commenced:
Brett Baxter, Graduate Certificate of Health Management (QH) commenced
Beth Baird, Graduate Certificate of Health Management (QH) commenced

Awards to Staff Members

S Brauer, Australian Physiotherapy Association, Queensland Branch, Award for Outstanding Contribution to Research, 2002.

Public Service Relevant to Research

Dr S Brauer
Editorial Board, Physiotherapy Research International.
Member, Research Committee, Australian Physiotherapy Association

L Redkin
Chair, Queensland Chapter, National Neurology Group, Australian Physiotherapy Association.

D Hayes
Treasurer, Queensland Chapter, National Neurology Group, Australian Physiotherapy Association.
Social Work Department

Since the appointment in 1999 of two academic staff from the School of Social Work and Social Policy University of Queensland to honorary associate positions within the Social Work Department at then hospital, closer research and teaching links between the School and the Department have been established. The main areas of activity have included contributions to the professional development program, undertaking of research projects, consultation with interested staff, and links with the broader Princess Alexandra Hospital research agenda.

Staff

SENIOR STAFF
Sue Cumming, Director
Margo Newman, Aged Care
Patricia Fronek, Rehabilitation and Disability
Sherryl Searles, Stroke, Cardiac & Oncology
Angela Tonge, Trauma and Critical Care
Patricia Harrower, Aged Care

RESEARCH STAFF
Dr Margaret Shapiro, Director Postgraduate Research Studies, School of Social Work and Social Policy, University of Queensland (UQ)
Dr Cheryl Tilse, Senior Lecturer, School of Social Work and Social Policy, UQ
Pat Dorsett, Research Officer, School of Social Work and Social Policy, UQ
Helen Redfern, Project Officer, School of Social Work and Social Policy, UQ

Current Research Activities

Participation in The Impact of Implementing an Outcome Directed Practice Model on Client Outcomes Project - a three year joint research initiative between the School of Social Work and Social Policy at The University of Queensland, the Social Work Departments of the Princess Alexandra, The Prince Charles and Mater Public Hospitals in Brisbane, and the Australian Association of Social Workers (Queensland Branch). The project is designed to (1) develop an outcome focussed model of social work practice (2) train social workers in the use of the model (3) review current outcomes measures for social work and develop new measures as required (4) test the new model against current models of practice to determine whether patient outcomes are improved.

Participation in a research project focusing on the implementation and evaluation of a Social Work Ethics Audit Risk Management Tool. The Social Work Department is one of eleven sites participating in this research funded by the University of Queensland.

Research and development of a book to assist children of patients who have had heart attacks. Book is close to completion. (M Warnick).

Research into needs of laryngectomy patients and subsequent successful funding application (2002) with Department of Speech Pathology, to develop a video to assist patients and carers. Project due to begin end of February 2003. (S Searles, K Hancock).

Involvement in The Regeneration of Human Spinal Cord Injuries with Olfactory Glial Cells Project.

Staff Knowledge, Comfort and Attitudes towards Sexuality within a Spinal Cord Injury Rehabilitation Service – Queensland Spinal Cord Injury Service.

Access and Issues in Transport to Dialysis Treatment. (J Howells, C Tilse).


Improving Care of Older Australians - National Demonstrations Hospital Program: Phase 4 in collaboration with the Caulfield General Medical Centre Melbourne Victoria (Princess Alexandra Hospital Project Sponsor Dr Ian Scott, Project Manager – K Johns)


The Physical Environment and Geriatric Medicine: Results of a patient and staff survey examining satisfaction with different environments and the impact environment has on patient outcomes. Dr P Varghese, Dr K Harvey, M Newman/T Harrower (Social Workers).

Completed 2002.

Participation in PhD research - University of Queensland Department of Social Work and Social Policy, PhD Candidate Keith Ung -
Shifting The Focus in Casework Supervision:
Finding a Space to Retrieve and Discover

**Financial support**
$69,342, ARC Spirit Grant. The Impact of Implementing an Outcome Directed Practice Model on Client Outcomes Project (Dr M Shapiro – School of Social Work and Social Policy, UQ)
$5,000, Dept of Nephrology, Div of CSS, School of Social Work UQ, Queensland Transport.
Tilse Access to transport for patients attending Dialysis Treatment Training (Social Work Department, School of Social Work and Social Policy University of Queensland)

**Lectures and Presentations**

**Dr S Taylor**
Genetic testing and the risks of stigmatisation
Princess Alexandra Hospital Week

**Dr C Tilse, J Howells**
Access to Regular Transport – a Key in Dialysis Treatment Princess Alexandra Hospital Week

**C Mira.**
Social Work presentation living with Cancer Program – psychosocial component, in conjunction with Mt Gravette Community Health

**E Fitzpatrick**
Social Work involvement in the ABC’s Australian Story Blood Relations. The story presented a live unrelated kidney transplant donor and recipient, two work colleagues of aboriginal origin who were dedicated to their community and cultural heritage. Transplant Education Seminars on the Social Perspective of Cadaveric Kidney Transplant.

**Dr C Tilse**
Managing Assets in Older Age, presentation to Geriatric and Rehabilitation Research Group.

**S Cumming**
Presentation on Discharging Patients to Residential Care Facilities at District Manager’s Quality Forum, Princess Alexandra Hospital, April 2002.

**Post Graduate Students**
Janet Howells, Master of Social Work
Brooke Kooymans, Master of Social Work
Jane Whelan, Master of Social Work

**Public Service Relevant to Research**

**T Harrower**
Membership of Reference Committee for the Research Project Managing Assets in Older Age, School of Social Work and Social Policy, University of Queensland.

Commissioned by Australian Health Ministers Advisory Council (AHMAC) Working Group for Care of the Older Australians: Allied Health Panel

**M Newman**
Australian Association of Social Workers Working Party on Aged Services

**S McKain, T Harrower**
Queensland Health Aged Care Strategic Plan Consultation:
Membership of Reference Committee for the Research Project Managing Assets in Older Age, School of Social Work and Social Policy, UQ.
Speech Pathology Department

The Speech Pathology Department provides speech pathology services to adult inpatients and outpatients. The Department specialises in the assessment and management of patients with acquired neurogenic communication disorders, swallowing disorders, voice disorders, laryngectomy and other head and neck surgery. Ten full time equivalent speech pathologists are allocated to teams in the Brain Injury Unit, Geriatric Unit, Spinal Injuries Unit, ENT/Plastics, Neurosciences/Acute Stroke Unit and Radiation Oncology. Services are also provided to other medical, surgical and mental health wards. Staff also participate in multidisciplinary tertiary clinics such as Voice Clinic, Modified Barium Swallow Clinic and Endoscopic Evaluation of Swallowing Clinic, Botox Spasmodic Dysphonia Clinic, and Head and Neck Clinic.

The Department is actively involved in clinical education and research, and is committed to state and national professional leadership in the management of laryngectomy, tracheostomy, dysphagia and acquired brain injury. Speech Pathology at Princess Alexandra Hospital has a long history of well established close links with the University of Queensland Department of Speech Pathology and Audiology in undergraduate and post graduate training programs and collaborative research. These links have been further strengthened by the appointment of a conjoint Lecturer in Speech Pathology (Research) from early 2001 and the associated Motor Speech Research Unit facilities on site in the allied health research area of the new acute hospital.

Research initiatives relate to two main areas. Acquired neurological disorders and their associated communication deficits (such as dysphasia) and swallowing deficits, including strong research interests related to Parkinson’s Disease and stroke. The statewide tertiary units, Brain Injury and Spinal Injury Units also provide excellent opportunities for research into post-traumatic conditions across the continuum of care from acute wards to Day Hospital and community reintegration.

Head and neck/voice pathology related to cancer and subsequent ENT surgery, radiation and related conditions, for example laryngectomy.

The establishment of the on-site Motor Speech Research Laboratory by the University of Queensland (UQ) in the new hospital has facilitated more specialised instrumental assessment and biofeedback treatment of motor speech subsystems such as respiration, phonation, articulation and nasality. Research into motor speech and voice potentially relates to a large group of patients with neurological and ENT conditions, and will be an area of growth in the future.

Staff

Wendy McCallum (B.Sp.Thy), Director
Louise Cahill (B. Sp. Thy.), Lecturer Speech Pathology (Research), conjoint University of Queensland and Princess Alexandra Hospital position
Jenny Lethlean (B. Sp.Thy, PhD), Speech Pathologist
Annie Johnson (Reilly) (B.Sp. Thy.), Senior Speech Pathologist
Kathy Clark (B.Sp.Thy.), Senior Speech Pathologist
Paula Addis (B.Sp.Thy.), A/Senior Speech Pathologist
Kelli Hancock (B.Sp. Thy.), A/Senior Speech Pathologist
Maura Solley (Bock) (B.Sp.Thy), Speech Pathologist
Jenni Boxall (B.Sp.Thy.), Speech Pathologist
Marnie Seabrook (B. Sp.Thy.), Speech Pathologist
Petrea Cornwell (B. Sp. Path Hons), Research Assistant

Current Research Activities

An evaluation of continuous airway pressure (CPAP) in the treatment of impaired velopharyngeal function in neurologically-impaired individuals. (L Cahill, D Theodoros, P Addis, P Stabler, S Holmes, A Turner).
Physiological investigation of laryngeal dysfunction following carotid endarterectomy. (B Murdoch, J Lethlean, A Reilly, L Cahill, T McGahan, H Gibbs).
Functional speech and swallowing outcomes following differential management of laryngeal cancer. (E Ward, L Cahill, M Bock, K Hancock, W Coman, B Murdoch).
The impact of cervical spinal injury on communication: A physiological, acoustic and
perceptual analysis. (N Macbean, E Ward, L Cahill, T Geraghty, C Hukins, B Murdoch, M Boek, K Hancock).

Allied health outcomes following acute stroke unit management. (J Lethlean, L Cahill, S Kuys, L Caldwell, G Hall, J Chalk, K Boch, P Aitken).

Dopaminergic modulation of semantic and syntactic processing: Evidence from patients with basal ganglia pathology. (A Angwin, H Chenery, D Copland, B Murdoch, P Silburn, W McCallum).

Evaluation of a memory rehabilitation group for adults with acquired brain injury living in the community. (K Boyd, J Fleming, J Griffin, R McQueen, L Cahill, P Addis).

High level language impairment following subarachnoid haemorrhage and surgical treatment of aneurysms. (A Thomas, B Murdoch, L Cahill, A Nowitzke, J Matthew, L La Pointe).

Articulatory Function in Adults following Traumatic Brain Injury. (M Kuruvilla, B Murdoch, J Goozee).


The effectiveness of a multidisciplinary movement disorder program to improve quality of life for Parkinson’s disease patients and their carers. (J Lethlean, K Pery-Johnston, S Taylor, G Berry, R Boyle, P Silburn, J Fleming).

Agrammatic comprehension deficit in aphasia: Testing competing linguistic theories and the clinical application of on-line techniques. (J Ingram, H Chenery, E Cardell, F Hinchliffe, W McCallum, P Aitken).

The role of subcortical neural mechanisms and frontal lobe disconnection in language. (B Whelan, B Murdoch, P Silburn, B Hall).

An electropalatographic investigation of articulation in the dysarthrias and apraxia of speech. (M McAuliffe, E Ward, B Murdoch, K Clark).

**SIGNIFICANT CLINICAL PROJECTS**

Pre-operative Laryngectomy Educational Video for patients and their families. (S Searles, K Hancock).

**Financial Support**

$114,669, Garnett Passe/Rodney Williams Memorial Foundation. Quality of Life (QOL), cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer. (Professor W. Coman Professor B. Murdoch E. Ward L. Cahill)

$7,500, School of Health & Rehab Sciences Research Grant Scheme. Perceptual, physiological and acoustic assessment of the speech outcomes of non-ventilator dependent patients with spinal cord injury following motor vehicle accidents (MVA) (Dr E Ward L Cahill B Murdoch)

$1,0000 Princess Alexandra Hospital Foundation. Allied health outcomes following acute stroke unit management. (Dr J Lethlean, S Kuys, L Caldwell, J Hay, G Hall, K Boch, P Aitken).

**Publications**

**ARTICLES ACCEPTED FOR PUBLICATION**


**Lectures and Presentations**

Cahill LM, Theodoros DG, Murdoch BE and McMillan J

Physiological features of dysarthria in Friedreich’s ataxia. Presentation at the 3rd Asia Pacific Conference on Speech Language & Hearing. Taiwan, November 2002.


Hancock K and Parkin M


(in module - Technological advances and diversity in adult dysphagia management - organised by K. Hancock and M. Parkin).
Solley M

Laryngectomy Study Day. Conference organised by Princess Alexandra Hospital acute speech pathology staff to 85 registrants, October 2002.

Examining the Evidence for Dysphagia Management of Adults with Tracheostomies. Queensland video teleconference presentation, Princess Alexandra Hospital, October 2002.

Lethlean J (Invited speaker)
Allied health outcomes following severe stroke: Preliminary case data. Presentation at the CONROD Convocation, Brisbane, May 2002.

Cahill L (Invited speaker)

Hancock K (Invited speaker)
Management of speech and swallowing disorders following treatment for laryngeal carcinoma. Presentation at Princess Alexandra Hospital Week, July 2002.

Speech and Swallowing following Head & Neck surgery. Head and Neck Workshop, Princess Alexandra Hospital, November 2002.

Clark K (Invited speaker)
Communication in Rehabilitation. Rehabilitation Nurses seminar, Princess Alexandra Hospital, September 2002.

Post Graduate Students
L. Cahill, PhD, completed in 2002
N. Meabean, PhD, commenced
A. Angwin, PhD, commenced
C. Thomas, PhD, commenced
M. Kuruvilla, PhD, commenced
E. Cardell, PhD, continuing
B. Whelan, PhD, continuing
M. McAuliffe, PhD, continuing
A. Farrell, PhD, continuing

Awards to Staff Members
Churchill Fellowship awarded to Maura Solley to study communication and swallowing programs for ventilator assisted individuals in USA and UK (1999) with particular reference to spinal injury, intensive care and respiratory units.

Public Service Relevant to Research
L. Cahill
Reviewer for Journal of Speech Pathology Australia (Advances in Speech Language Pathology)
Pharmacy Department

The Pharmacy Department provides Clinical, Dispensing and Supply Services to Inpatients and Outpatients. To support the vision and mission of the Princess Alexandra Hospital, many activities of the pharmacy focus on the Quality Use of Medications. The Quality Use of Medicines research activities include projects related to Medication Liaison between the hospital and the community and Medication Safety.

The research activities of the pharmacy department include support for clinical trials, Drug Utilisation Evaluation (DUE) and Quality Use of Medications (QUM) activities.

The clinical trials pharmacist, the sterile manufacturing pharmacists and staff, and other pharmacists have continued to provide support to investigators involved in clinical trials.

The DUE pharmacist has continued to coordinate the DUE studies.

Staff
Gwynneth Petrie, Director
Christine Maclean, Assistant Director
Ian Coombes, Assistant Director seconded to Adverse Drug Event Project July 2002
Andrew Jagels, Acting Assistant Director
Robyn Hurley, Clinical Trials Pharmacist
Susan Cobcroft, Pharmacist, in Charge of the Sterile Production Centre
Susan Cobcroft, Robyn Hurley, Christine Carrington, James Radford, Oncology/Haematology Unit (OHU)
Judith Coombes, Senior Pharmacist Education, Conjoint Lecturer School of Pharmacy, University of Queensland (UQ)
James Radford, Jennie McKay, Senior Pharmacist Drug Utilisation Evaluation (DUE)
Adnan Gaugar, Project Officer DUE
Jo Sturtevant, Clinical Pharmacist, Renal
Cathy Lynch, Geriatric and Rehabilitation Unit Pharmacist

RESEARCH ASSISTANT
Daniella Sanders, Cardiac Consortium Research Pharmacist to Sep 2002, "Australian Pharmacy Advisory Council Continuum of Quality Use of Medicines" implementation officer from Sep 2002

Current Research Activities

CLINICAL TRIALS
Dispensing, production and record keeping support for Clinical Trials during 2002 has involved about 100 trials. About 30 of these trials have had aseptic and safe handling production provided by the Sterile Production Centre.

Sevelamer Hydrochloride used in combination with conventional phosphate binders improves calcium phosphate balance. (In collaboration with the Nephrology Department, J Sturtevant, C Hawley, N Isbel, R Kirwan)

A randomized controlled trial assessing the impact of oral iron supplementation on mycophenolate mofetil absorption in renal transplant recipients 2002 (Johnson DW, Campbell SB, Hawley CM, Isbel N, Nicol DL, Taylor P, Pillans P Sturtevant J)


OTHER RESEARCH
Self Medication Project in the Geriatric and Rehabilitation Unit. Lynch C
Intravenous Fluid and electrolyte safety project. Coombes I Mitchell C Funded by the Australian Council for Quality and Safety
Evaluation of Faxing of Medication Discharge information to GP a Quality enhancement improvement Project (QIEP)
The implementation and evaluation of APAC Co QUM GP a Quality enhancement improvement Project (QIEP)
DUE projects
Treatment of Post Operative Nausea and vomiting
Use of Gabapentin
Vancomycin Monitoring
Tramadol use
Medication administration audit
Financial Support
$5,254 QIEP. Faxing of Discharge summaries to GPs with evaluation Petrie G Sanders D
$25,000 QIEP. APAC co QUM implementation and evaluation Lynne T, Petrie G, Sanders D

Publications

ABSTRACTS PUBLISHED

Mc Govern TL Salt Stories the importance of history. Proceedings of the SHPA state conference 2002
Mckay J Dhippayom T Audit of post operative re-warfarinisation of patients receiving chronic warfarin therapy. Proceedings of the SHPA state conference 2002

ARTICLES ACCEPTED FOR PUBLICATION

Lectures and Presentations
Invited unless otherwise stated.
Maclean Christine
“Update on Pharmacy Assistant and technician Training” SHPA state Conference 2002

Coombes I
PA week
PA Safety Forum
Systems to improve medication safety SHPA state Conference 2002
Heart failure - advances. Post Graduate Diploma in Clinical Pharmacy September 2002
Anticoagulation / Antithrombotic therapy Post Graduate Diploma in Clinical Pharmacy September 2002
Granary S
Advances in Depression Post Graduate Diploma in Clinical Pharmacy September 2002

Sturtevant J
Drug Dosing in renal Disease Post Graduate Diploma in Clinical Pharmacy September 2002

Sanders D
Living with Heart Failure. Pharmaceutical Society of Australia 5th February 2002
Explaining the evidence to patients. School of Pharmacy University of Queensland February 2002
The missing link- Bringing community pharmacists into the hospital discharge liaison process National Medicines Symposium Canberra 20-22nd March 2002
The management of ACS and CHF – How well do you do Brisbane South Division of General Practice CE workshop facilitator April 2002
The missing link- Bringing community pharmacists into the hospital discharge liaison process Australian Association for quality in health care June 2002

Post Graduate Students
Belinda Corfield, Diploma in Clinical Pharmacy, University of Queensland, Commenced 2002
Kieren Behan, Diploma in Clinical Pharmacy, University of Queensland, Completed 2002

Trudy Mc Govern, Graduate Diploma of Business Administration, University of Queensland; In Progress

Awards to Staff Members
Coombes, IPA Week recipient of best Allied Health presented paper award
Unwin Sean SHPA Conference 2002 recipient of best poster award

Public Service Relevant to Research
Gwynneth Petrie
Society of Hospital Pharmacists of Australia (SHPA), Deputy Chairman - Board of Censors, The Board of Censors runs the Fellowship Course, which includes a research component, for the Society of Hospital Pharmacists of Australia.
Member, Review panel for SHPA Clinical Pharmacy Awards.
Member, Queensland Health Hospital Pharmacy Advisory Committee (Objectives include: create an environment that supports pharmacists active engagement in teaching and research leading to publication and recognition with a view to supporting evidence based practice).

Christine Maclean
Federal Council Member, SHPA.

Ian Coombes
Chair, SHPA (Queensland Branch).
How can you help?

Contact: Princess Alexandra Hospital Foundation
Telephone: 61 7 3240 2359
Facsimile: 61 7 3240 7303
Email: barbara_blake@health.qld.gov.au