

WAIKATO CLINICAL SCHOOL

ANNUAL REPORT 2005

Head of School

Professor Ross Lawrenson

Deputy Head of School

Associate Professor Peter Jones

Head of Research

Associate Professor John Conaglen

Head of Postgraduate Studies

Professor David Simmons

Head of Undergraduate Teaching

Dr Noel Manikkam

Names of Management Committee Members (for University Centres and Institutes)

As above plus

Professor Graham Mellsop

Professor Jamie Sleigh

Mrs Raewyn Wooderson

General Summary

The Waikato Clinical School is one of the 3 clinical schools that are part of the School of Medicine within the Faculty of Medical and Health Sciences at the University of Auckland. The purpose of the School is to provide an outstanding environment in which medical students can undergo their clinical training and to pursue excellence in teaching

and learning through exposure to high quality clinical teachers. The School is also committed to developing and increasing its research performance and the number and quality of its postgraduate students in line with the University strategy.

Goals and Mission statement

The mission of The University of Auckland is to be ‘a research-led, international university, recognised for excellence in teaching, learning, research, creative work, and administration, for the significance of its contributions to the advancement of knowledge and its commitment to serve its local, national and international communities’.

General Research Goals

- 1) The WCS aims to increase both its clinical and basic research
 - a. To help form a basis for teaching
 - b. To strengthen the quality of clinical practice
 - c. To generally advance scientific knowledge
- 2) The WCS will encourage increased liaison with researchers in New Zealand and internationally. In particular there will be an emphasis on developing collaborative relationships with other research teams in the University of Auckland
- 3) The WCS will increase liaison with funding bodies
- 4) The WCS will encourage research in aspects of rural medicine
- 5) The WCS will encourage research into aspects of delivery of health gains to Māori

The WCS will adopt an academic structure that will ensure it develops into a research led school providing an excellent teaching and learning environment.

Relationship with Waikato District Health Board

The Waikato District Health Board is one of the biggest in the country and provides a range of clinical services including those of the main tertiary centre for the Midland Region. It is also responsible for purchasing a number of important community based services from local providers. The Waikato Hospital is a 700 bed regional base hospital providing general services for a population of 320,000 and tertiary specialist services for a regional population of 800,000. A regional trauma service is provided with a dedicated helicopter service based on campus. The Chief Executive of the WDHB from 1998 to 2005 was Dr Jan White who not only supported the WCS as a teaching centre but has also provided considerable funding to support research and to establish Chairs in Medicine, Geriatrics, Psychiatry and Child Health. In addition the WDHB, Health Research Council, and Lakes DHB jointly funds the Te Wai O Rona: Diabetes Prevention Strategy. The University of Auckland greatly value their strategic partnership with the Waikato DHB and formally signed a strategic alliance agreement in November 2005.

Undergraduate Students

The purpose of the school is to provide an outstanding environment in which medical students can undergo their clinical training and to pursue excellence in teaching and learning through exposure to high quality clinical teachers. Undergraduate medical students from the University of Auckland apply to undertake clinical training at the Waikato Clinical School and can be accommodated in most specialties in the 4th, 5th and 6th years of the course. “Selective” attachments are also available and there are a limited number of overseas elective students accepted each year. 24 Trainee Intern positions are available at Waikato and 12 on the Rotorua Campus. In 2005 we had 22 students at Waikato and 12 at Rotorua. All the students have completed their requirements for the TI year and all but two are working in New Zealand as PGY1 house surgeons. (One former IMU student has chosen to defer commencement of the PGY1 year).

Hauora Māori

The main engagement on Māori health at the WCS has been through Te Wai O Rona: Diabetes Prevention Strategy where our contacts have been through local Iwi and a specially formed Katiaki Rōpu. The Te Wai O Rona: Diabetes Prevention Strategy team have taken on a Research Fellow in qualitative research, Margaret Williams with funding support from the University. Prof Graham Mellsop is also co-supervising a Māori PhD student in Mental Health.

Population Health and Primary Care

The school is reviewing ways that it can support the strengthening of this domain within the curriculum. One initiative is to develop a flexible learning resource for rural students, which strengthens this domain.

Elective Students

The WCS hosted 21 elective students in 2005 including students from the UK, the Netherlands, Germany, Denmark and Australia.

Waikato Clinical School Prizes 2005

Pinnacle Prize in General Practice

Alexandra Currie

Ellis Dick Trainee Intern Prize in Surgery.

Rachael Luckie

Amersham Health, Trainee Intern Prize in Radiology

Wei Ming Eleanor Ng

The Medlab Hamilton Prize in Clinical Medicine

Rachael Luckie and Wojt Janowski

Peter Rothwell Clinical Teacher Award

Thodur Vasudevan

Postgraduate Study

There are currently 4 PhD students registered with the University with supervisors from Waikato Clinical School. We are also very pleased that Dr Michael Jameson, Honorary Senior Lecturer in Medicine was awarded his PhD in 2005 entitled "A phase I trial of DMXAA".

Current PhD Students

Grace Joshy

Pip Clark

Rathan Subramaniam

Kahu McClintock

MD

We currently have one student enrolled for an MD

Mr Thodur Vasudevan

RESEARCH

Medicine

The research interests of the Dept of Medicine at the Waikato Clinical School include diabetes, cardiology, oncology, endocrinology, dermatology and rheumatology.

Diabetes

The main areas of research of this group are in community based diabetes programs, gestational diabetes and health services research. Current activities of the diabetes research group include the Te Wai O Rona: Diabetes Prevention Strategy funded by the HRC, a health services research project in Taumaranui and work on diabetes and pregnancy.

Staff Publications

Prof D Simmons

McElduff A, Cheung NW, McIntyre HD, Lagstrom JA, Oats JJ, Ross GP, Simmons D, Walters BN, Wein P; Australasian Diabetes in Pregnancy Society. The Australasian Diabetes in Pregnancy Society consensus guidelines for the management of type 1 and type 2 diabetes in relation to pregnancy. *Med J Aust.* 2005 Oct 3;183(7):373-7.

McIntyre HD, Cheung NW, Oats JJ, Simmons D. Gestational diabetes mellitus: from consensus to action on screening and treatment. *Med J Aust.* 2005 Sep 19;183(6):288-9.

Whelton PK, Barzilay J, Cushman WC, Davis BR, Iamathi E, Kostis JB, Leenen FH, Louis GT, Margolis KL, Mathis DE, Moloo J, Nwachuku C, Panebianco D, Parish DC, Pressel S, Simmons DL, Thadani U; ALLHAT Collaborative Research Group. Clinical outcomes in antihypertensive treatment of type 2 diabetes, impaired fasting glucose concentration, and normoglycemia: Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *Arch Intern Med.* 2005 Jun 27;165(12):1401-9.

Simmons D, McKenzie A, Eaton S, Shaw J, Zimmet P. Prevalence of diabetes in rural Victoria.

Diabetes Res Clin Pract. 2005 Dec;70(3):287-90.

Simmons D, Khan MA, Teale G. Obstetric outcomes among rural Aboriginal Victorians. *Aust N Z J Obstet Gynaecol.* 2005 Feb;45(1):68-70.

Simmons D, Thompson CF, Engelgau MM. Controlling the diabetes epidemic: how should we screen for undiagnosed diabetes and dysglycaemia? *Diabet Med.* 2005 Feb;22(2):207-12.

Simmons D, Conroy C, Thompson CF. In-hospital breast feeding rates among women with gestational diabetes and pregestational Type 2 diabetes in South Auckland. *Diabet Med.* 2005 Feb;22(2):177-81.

Simmons D, McKenzie A, Eaton S, Khan MA, Shaw J, Zimmet P. Choice and availability of takeaway and restaurant food is not related to the prevalence of adult obesity in rural communities in Australia. *Int J Obes*. 2005;29:703-710

Simmons D, Bourke L. How does a household survey change consumer perspectives of diabetes in a multiethnic area of New Zealand. *JR Consumers*. 2005;8.

Simmons D. Characteristics of hypertensive patients and their management in rural Australia. *J Hum Hypertens*. 2005;19:497-499.

Simmons D, Haslam A, Wolmarans L, Waymouth S, McClymont J, Johnson E. Diabetes in Pregnancy Management, Protocol and Guidelines. <http://intranet/TheWire/> 2005

Simmons D. Special situations in pregnancy. In: Asia Pacific Type 2 diabetes policy group. Type 2 diabetes: Practical targets and treatments (3rd Edition). International Diabetes Federation 2005:24.

Cardiology

Current research Dr G Devlin and Assoc Prof J Conaglen

Matthews KG, Devlin GP, Stuart SP, Jensen JA, Doughty RN, Conaglen JV, Bass JJ. Intrapericardial IGF-I improves cardiac function in an ovine model of chronic heart failure. *Heart Lung Circ*. 2005 Jun;14(2):98-103.

Elston MS, Swarbrick MJ, Conaglen JV. Insulinoma localization using hepatic venous sampling with selective arterial calcium stimulation: should a fixed calcium dose be used? *Clin Endocrinol (Oxf)*. 2005 Oct;63(4):480-1.

Bruce SM, Conaglen HM, Conaglen JV. Burnout in physicians: a case for peer-support. *Intern Med J*. 2005 May;35(5):272-8.

Dermatology

Dr A Oakley

Oakley A. Focus on: information technology. Online drug information for dermatology patients. *J Drugs Dermatol*. 2005 Jan-Feb;4(1):108-13.

Rheumatology

Assoc Prof P Jones

Jones P, Alexander CJ, Stewart J, Lynskey N. Idiopathic osteoarthritis and contracture: causal implications. *Ann Rheum Dis*. 2005 Feb;64(2):226-8.

Paediatrics

Dr David Graham has been the principal investigator in a randomised intervention study of exercise in school children funded by the Waikato DHB - Project Energize. The intervention arm is being run by Sport Waikato.

Staff Publications

Dr D Graham

Chen E, Beasley B, Grimwood K and the New Zealand Rotavirus Study Group. Intussusception and rotavirus associated hospitalisation in New Zealand. Archives of disease in childhood. 2005. 90(10): p. 1077-1081

Sue Huang Q, Greening G, Baker MG, Grimwood K, Hewitt J, Hulston D, van Duin L, Fitzsimons A, Garrett N, Graham D, Lennon D, Shimizu H, Miyamura T, Pallansch MA. Persistence of oral polio vaccine virus after its removal from the immunisation schedule in New Zealand. Lancet., 2005. 366(9483): p. 394-396.

Cowley, C. and D. Graham, Management of childhood Gastroenteritis. New Zealand Family Physician, 2005. 32(2): p. 110-116

Gillies, J, Brown, J, Byrnes C, Farrell A, Graham D. PHARMAC and Ventolin in New Zealand. New Zealand Medical Journal, 2005. 118 (1220)

Surgery

Staff Publications

Mr I Campbell.

Brunton M, Jordan C, Campbell I. Anxiety before, during, and after participation in a population-based screening mammography programme in Waikato Province, New Zealand. N Z Med J. 2005 Feb 11;118(1209).

Anaesthetics

Staff Publications

Prof. J Sleigh

Dr J Barnard

Mr L Voss

Dr R Subramaniam

McKay ID, Voss LJ, Sleight JW, Barnard JP, Johannsen EK. Pharmacokinetic-pharmacodynamic modeling the hypnotic effect of sevoflurane using the spectral entropy of the electroencephalogram. *Anesth Analg*. 2006 Jan;102(1):91-7.

M. T. Wilson, M. L. Steyn-Ross, D. A. Steyn-Ross, and J. W. Sleight Predictions and simulations of cortical dynamics during natural sleep using a continuum approach *Physical Review E*, 2005, Vol 72, issue 5,

M.L. Steyn-Ross, D. A. Steyn-Ross, J. W. Sleight M. T. Wilson and L. C. Wilcocks. A proposed mechanism for learning and memory erasure in a white-noise-driven sleeping cortex. *Physical Review E*, 2005, 72, 061910. Also selected for the December 15, 2005 issue of *Virtual Journal of Biological Physics Research*

D. A. Steyn-Ross, M. L. Steyn-Ross, J.W. Sleight, M. T. Wilson, I. P. Gillies, and J. J. Wright, The Sleep Cycle Modelled as a Cortical Phase Transition. *Journal of Biological Physics* 2005;31(3-4): 547 - 569.

J. Sleight, L. Voss, J. Barnard, What are Electroencephalogram Entropies really measuring? ICS1283 MAAC2005, Elsevier International Congress Series 2005

Voss LJ, Young BJ, Barnards JP, Sleight J. Differential anaesthetic effects following microinjection of thiopentone and propofol into the pons of adult rats: a pilot study. *Anaesth Intensive Care*. 2005 Jun;33(3):373-80.

Subramaniam R, Hall T, Chou T, Sheehan D. Radiology knowledge in new medical graduates in New Zealand. *N Z Med J*. 2005 Oct 28;118(1224)

Subramaniam RM, Heath R, Chou T, Cox K, Davis G, Swarbrick M. Deep venous thrombosis: withholding anticoagulation therapy after negative complete lower limb US findings. *Radiology*. 2005 Oct;237(1):348-52.

Prof Sleight Invited Lectures:

1. Mean-field modelling of cerebral cortical function: application to anaesthesia, sleep and seizures, NZ MedSci Conference Queenstown 7th December 2005.
2. General anesthesia: a tool to understand engines of consciousness. Porritt Lecture, Wanganui, Nov 17th 2005.
3. General Anesthetic-Induced Seizures Can Be Explained By A Mean-Field Model Of Cortical Dynamics. 9th Tamagawa Brain Dynamics Forum. Auckland Nov 7-9th 2005.
4. General anesthesia: a tool to understand engines of consciousness. Berkeley 17th Oct 2005.
5. Advances and retreats in the clinical monitoring of general anaesthesia "depth". UCSF 12th Oct 2005.
6. Mean-field modelling of the Cerebral Cortex. UCSF, 14th Oct 2005.
7. Mean-field modelling of the Cerebral Cortex. University of Wisconsin, Madison, 19th Oct 2005.
8. Mean-field modelling of the Cerebral Cortex. George Mason University 21st Oct 2005.
9. Identifying bugs the genomic way. NZAEC Nelson 14th Sept 2005
10. 'It would be nice if treating sepsis was a simple matter of giving antibiotics' an update of serious sepsis. NZAEC Nelson 15th Sept 2005

11. The Anaesthetist: a Disease Vector? NZAEC Nelson 16th Sept 2005
12. What do EEG Monitors Measure? ANZCA-ANZICS Auckland, 8th May 2005.
13. Pathophysiology and Treatment of Seizures in ICU. ANZCA-ANZICS Auckland, 10th May 2005.
14. Advances and retreats in the clinical monitoring of general anaesthesia “depth”. Clinical Diagnosis and Imaging Workshop. Swinburn University, Melbourne, 14th April 2005.
15. What are EEG-entropies really measuring? Mechanisms of Anesthesia Conference 2005, Nara Japan 1st March 2005.

Research Grants

1. WMRF \$22 000. Pyramidal cell- inhibitory cell spike correlations during NREM-REM transitions. PhD scholarship, with Dr L Voss.
2. WMRF \$20 000. Riboflavin, Selenium, Metoclopramide as treatment in severe infection. With Dr M Kalkoff.

Psychiatry

The WCS Department of Psychiatry is the most active research centre on classification and Psychiatry. With support from WHO and the NZ MoH there are six projects seeking to define what different user groups seek from a classificatory system. Parts of this project have international arms in Brazil, Japan and Malaysia. Two other projects centre on exploring the concept of a dimensional approach to classification, and an axis which reliably and comprehensively assesses risk. Two projects on establishing the psychometric properties of a measure of functionality have also commenced. There is also participation in primarily NZ, but with international co-operation, explorations of links between culture and related variables, with Clinical Psychiatry.

Staff Publications

Prof. G. Mellsop

Mellsop GW, Lutchman R, Thompson A, Tait H, Savage A-L, Aitchison R, Culver A, McClintock J, Cheung G (2005) Functional Outcome Measures for Children and Youth, Adults and Older Adult Consumers in New Zealand Mental Health Services. Report Submitted to Mental Health Research & Development Strategy, Health Research Council of New Zealand.114

Chipps J, Mellsop GW, Stewart M. Guidelines for the use of Outcome Data. Document produced for the Mental Health Research & Development Strategy, HRC/Ministry of Health 2004. pp 1-42.

Eagar K, Trauer T, Mellsop G. Performance of routine outcome measures in adult mental health care. Aust N Z J Psychiatry. 2005 Aug;39(8):713-8.

General Practice and Primary Care/Rural Health

Prof. Lawrenson joined in June 2005 and has been working with Dr. Lillis in strategically planning the research aims for the department. This will include aspects of rural health, health services research relevant to primary care and educational research. Dr Lillis is currently studying for a doctorate in education at the University of Waikato.

Staff Publications

Prof R Lawrenson

Dr S Lillis

Clauss R, Mayes J, Hilton P, Lawrenson R. The influence of weather and environment on pulmonary embolism: pollutants and fossil fuels. *Medical Hypotheses*. 2005;64(6):1198-201.

Mulnier H, Seaman H, Lovell D, Lawrenson R. The increasing proportion of patients with type 2 diabetes converting to insulin therapy. *Practical Diabetes International*. 2005; 22(6): 202-6

Lord H, Lillis S. Implementing Significant Event Management in general practice – potential barriers and solutions. *New Zealand Family physician* 2005 32: 247-250

Lillis S ‘Error in Medicine’ In ‘Coles Medical practice’ St George I (ed.), New Zealand Medical Council of New Zealand.

Prizes

Lillis S. The “Novartis Award” for research

Waikato Clinical Skills and Simulation Centre

Within the WCS, we have an excellent purpose-built skills and simulation centre and an extensive range of equipment. The centre is a cooperative venture between the Waikato DHB and University of Auckland (WCS). The centre delivers a wide range of high-quality practical courses and hands-on workshops for most of the health disciplines, and for both undergraduate and postgraduate health professionals. In 2005 we reached a milestone of over 7,000 participants attending the centre since opening in June 2002.

Demand for courses at the Centre continues to grow along with our own initiatives and specialist niche courses. The increase in activity has led to the employment of an extra part-time coordinator Tracy Tessier-Varlet, 3 days per week.

Highlights for the year include:

- Delivery of Basic Surgical Skills workshops for Trainee Interns
- Advanced Life Support two-day courses for all Trainee interns
- Regular skills-based practical sessions for 1st Year House Surgeons
- Endovascular two-day workshop for Australasian Vascular Surgeon trainees and consultants
- Several minor surgery workshops and a range of practical workshops for General Practitioners
- National franchised courses continue to be attracted here including EMST (trauma) and APLS (paeds)
- Implementation of a comprehensive advanced resuscitation training program for nursing and medical staff, including an outreach program to outlying hospitals and community groups
- Post Anaesthetic Care Unit (PACU) courses delivered here in collaboration with Wellington faculty
- Purchase of high-fidelity paediatric simulator and other key equipment

WCS Administration

Current WCS meetings/committees include

- Joint relations executive between the Faculty and the WDHB – 4 times a year.
- WCS executive meetings – 6 weekly
- WCS Undergraduate teaching committee – 8 weekly
- WCS Postgraduate teaching committee
- WCS Research committee
- WCS Faculty meeting – a meeting of all clinical staff 4 times a year

Administration Staff

School manager

Administrative Assistant/Secretary Head of School

Administrative Assistant/Secretary Prof Medicine

Administrative Assistant/Secretary Prof Psychiatry

Overseas Links

Prof Simmons has a visiting appointment with Melbourne University – a Universitas 21 institution with a rural school at Shepparton.

Prof Sleight undertook a lecture tour of UCSF, Berkeley, University of Wisconsin (Madison), and the Krasnow Institute of the George Mason University (Washington); which is leading to some joint publications and NIH research funding applications.

Prof Mellsop has been the Principal Reviewer, Tasmanian Mental Health Services and was an invited speaker at the world Psychiatry Conference in Cairo.