



Department of
Epidemiology
and Preventive
Medicine



**Annual
Report 2005**



MONASH

Centre for Occupational
and Environmental Health



CRC for Water Quality
and Treatment



Centre for
Research Excellence
in Patient Safety



CCRE
THERAPEUTICS

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Location



The Department of Epidemiology & Preventive Medicine (DEPM) was established in 1969 and has continued to expand. We are based in the Burnet Building, part of the Alfred Medical Research and Education Precinct at The Alfred Hospital.

We are very close to the City of Melbourne, with easy access to public transport, and most of our postgraduate teaching is carried out here in the AMREP classrooms. This location is convenient for international students who can live in the heart of Melbourne, a short tram or bus trip from our Department.





We also have a clinical trial centre at the Caulfield General Medical Centre, Kooyong Road, Caulfield, where large scale clinical trials are conducted.

CONTACT DETAILS

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Report from Head of Department



2005 was another important year of development for the Department, and our second year at the new AMREP facility within the Alfred hospital precinct. AMREP is one of Australia's premier research environments which we share with some of Australia's finest biomedical, clinical and public health scientists. This location brings great opportunities for collaboration and the initiation of new projects.

The year was also one of huge growth within the Department with the establishment of several new research groups –

- the NHMRC Centre of Research Excellence in Patient Safety. Funding for this national centre was provided by the Australian Council for Safety and Quality in Health Care
- the Australian New Zealand Intensive Care Society's Clinical Trial Centre, funded by an NHMRC five-year Enabling Grant and headed by Professors Rinaldo Bellomo, Jamie Cooper, Simon Finfer and John Myburgh
- the establishment of the Monash Centre for Occupational and Environmental Health (MonCOEH), directed by Professor Malcolm Sim.
- the establishment of the Kidney Disease Prevention Unit, headed by Professor Robert Atkins, recent president of the International Society of Nephrology.

2005 was also a successful year with the commencement of various new funding initiatives. Rachelle Buchbinder was awarded funding from the Commonwealth Department of Health and Ageing to establish an Australian satellite for the Cochrane Musculoskeletal Review Group, which is based in Canada. Rachelle was also awarded an NHMRC Enabling Grant to continue and expand the Australian Rheumatology Association Database (ARAD).

The CRC for Water Quality and Treatment was awarded two NHMRC Project Grants to continue their research into the very topical and important area of water re-use. Karin Leder was awarded an NHMRC Project Grant to look at the health effects of drinking rainwater, and a one-year Project Grant to study the health effects of using recycled water in domestic laundries and recreational parks.

Malcolm Sim was awarded an NHMRC Project Grant to study occupational exposure to lead compounds and human cancer, and Flavia Cicuttini was awarded an NHMRC Project Grant to study the effect of weight loss on the risk of knee osteoarthritis and potential modification by biomechanical factors. We also moved further towards the funding of our long-planned ASPREE study of low-dose aspirin in the elderly.

Staff of MonCOEH were awarded a Victorian Public Health Award for Research Excellence for the Australian Gulf War Veterans' Health Study in 2005.

The year also saw further steps towards strategic direction of strengthening our research infrastructure. At previous meetings we have identified the need to develop this infrastructure as an important determinant of our future research success. In particular, we have identified large-scale trials, ongoing cohort studies, disease registries and national research centres as fundamental components of this infrastructure. We were pleased therefore

to secure continued funding for several major registries including VSTORM, VOTOR, Bosentan and the Haemostasis Registry. Funding was also awarded from the HCF Research Foundation to continue the Victorian Orthopaedic Trauma Outcomes Registry.

2005 also saw considerable development of our teaching program, both at undergraduate and postgraduate level. The Department's contribution to the new undergraduate medical curriculum continued under the direction of Michael Abramson and with major commitments by David Goddard, Danny Liew, Tsharni Zazryn, James Chan, Just Stoelwinder and several others.

Our Postgraduate program also continued to expand under the expert direction of Just Stoelwinder and reached a total enrolment of 365 students. Rory Wolfe was also outstanding in his new role as doctoral coordinator and both were ably assisted by the excellent staff in our teaching office.

Our doctoral program continued to grow, with 46 students enrolled at the end of 2005. Imo Inyang and Charmian Bennett were two of several new doctoral students. Helen Kelsall, who completed her PhD in 2004 was awarded a NHMRC Postdoctoral Fellowship, Charmian Bennet was awarded an NHMRC Public Health Postgraduate Scholarship, Fahad Hanna an NHMRC Scholarship, and Catherine Joyce an NHMRC Fellowship. Congratulations to all our 2005 doctoral graduates, including Alexander

Padiglione, Melanie Matheson, Robyn Tapp, Helen Kelsall, Catherine Joyce, Kathryn Antioch, Christopher Barton, Esther Briganti, Stephen Lim, and Bebe Loff. Bebe was the first law graduate to complete a doctoral degree in this Department.

We were privileged in 2005 to host a number of public health colleagues from overseas, including Nimalka Hetti, Nazria Shahim and Gamini Jayakody from Sri Lanka (where the MD training program provides for one year of training in an overseas institution), Arintaya Phrommintikul from Thailand, and Masoud Karimloo from the Tehran University of Medical Sciences. Iris de Ridder was a fourth year medical student from the University of Amsterdam who came here for research experience. We also welcomed several WHO Visiting Fellows from Vietnam, who were based in this Department for several weeks.

During the year we welcomed several new staff including Robert Atkins, James Cui, Martine Dennekamp, Max de Courten, Kaylene Hanlon, Sabina Davey, Christine Kirkham, James Chan, Kathlyn Ronaldson, Deborah Roberts, Louise Prentice, Robyn Woods, Sue Evans, and many others. To those who have moved on we extend our best wishes for future success and hope that their time in DEPM has assisted them in developing skills that will be valuable for them in the future.

Finally I would like to thank our wonderful administrative staff who have worked tirelessly to support our activities and to ensure that our other activities can proceed with minimum fuss and disruption. We have been fortunate indeed to have such a competent and pleasant group of people to assist us with these activities.

Professor John McNeil

MBBS, MSc, PhD, FRACP, FAFPHM

Senior staff 2005



Professor John McNeil
MBBS, MSc, PhD, FRACP,
FAFPHM
Head of Department

Member -

- National Blood Authority Advisory Board
- Scientific Advisory group Food Standards Australia & NZ
- Scientific Advisory Committee, Sir Edward Dunlop Research Foundation
- Metropolitan Ambulance Service Board of Management
- Colonial Foundation Limited Board

Chair -

- Victorian Public Health Research Education Council
- Alfred Hospital Ethics Committee

John's principal interests include cardiovascular epidemiology, drug safety and toxicology. He retains a clinical involvement as a vascular physician on the Vascular Medicine Unit at the Monash Medical Centre.



Professor Michael Abramson
MB BS, BMedSc(Hons), PhD,
FRACP, FAFPHM
Head of Clinical
Epidemiology Unit - Alfred
Deputy Head of Department

Member -

- NHMRC Research Fellowships Committee Peer Review Advisory Panel
- Australian Lung Foundation COPD Evaluation Committee (chair)
- CRC for Asthma & Airways Scientific Review Committee
- Organising Committee, Australasian Epidemiological Association Conference, Melbourne

Michael is a visiting medical officer in allergy, immunology and respiratory medicine at the Alfred Hospital in Melbourne. He also provides epidemiological expertise to the Australian Centre for Radiofrequency Bioeffects Research.

Michael currently teaches epidemiology and Evidence Based Clinical Practice to medical students and coordinates the Graduate Diploma / Master of Clinical Epidemiology and Doctor of Public Health at Monash University.



Professor Robert Atkins
AM, MBBS, MSc, DSc, FRACP
Head, Kidney Disease
Prevention Unit

- Director of the International Diabetes Institute
- Chairman of the National Chronic Kidney Disease Strategy Programme
- Asian Pacific Coordinator for the Collaborative Study Group
- Head of AusDiab Kidney
- Reviewer for the WHO Chronic Kidney Disease Programme

Professor Atkins is one of Australia's most eminent nephrologists. He was Director of the Department of Nephrology at Monash Medical Centre until 2005 and was a founding editor of "Nephrology". His work has been widely recognised. He won the inaugural Priscilla Kincaid-Smith Award of the Australian Kidney Foundation, Medal for Excellence in Kidney Research (1994), a Centenary Medal for Australia in 2003 and received the Order of Australia (AM) in 2003. He is a Fellow of the Royal Australian College of Physicians (FRACP).



Associate Professor
Rachele Buchbinder
MBBS(Hons), MSc, FRACP
Head of Clinical
Epidemiology Unit - Cabrini
Hospital

Member -

- Medical Advisory Committee for the Medical Research and Technology of Victoria program
- Cochrane Back Group Advisory Board
- Editorial Board, BMC Musculoskeletal Disorders

Chair -

- Australian Rheumatology Association Database (ARAD) Scientific Advisory Committee
- Coordinating Editor Cochrane Musculoskeletal Group

Rachele is Director of the Monash Department of Clinical Epidemiology at Cabrini Hospital. She is a rheumatologist and clinical epidemiologist. Her current research program covers the management of soft tissue disorders - particularly the shoulder, elbow, knee and heel and she has been involved in clinical trials of innovative new therapies in each of these areas.



Professor Peter Cameron
MBBS, MD, FACEM
Head of Pre Hospital,
Emergency and Trauma Unit

Member -

- Victorian Emergency Access Reference Committee
- Patient Access Taskforce Alfred Hospital
- International Federation of Emergency Medicine

Chair -

- Steering Committee Victorian State Trauma Committee
- Senior Examiner Australasian College for Emergency Medicine
- Editorial Boards Injury, Emergency Medicine Australasia

Peter Cameron is also Academic Director of the Emergency and Trauma Centre, The Alfred Hospital; Head of the Victorian State Trauma Registry and Associate Director of the National Trauma Research Institute. His main research interests include trauma epidemiology, injury prevention and management, prehospital care and health services and systems research.



Associate Professor
Maximilian de Courten
MD, MPH

- Member - Medical Screening Society
- Co-Founder International Insulin Foundation

Max obtained his medical degree at University of Basel in 1990 and undertook clinical research in the area of hypertension and insulin resistance. He then obtained a MPH from the University of Arizona while working at the N IH in Phoenix on the epidemiology of diabetes with the Pima Indians. He has worked with the WHO in Switzerland and in Fiji for WHO South Pacific. His role there was to coordinate non-communicable disease prevention and control programs across 22 island nations.

His current research interest is in the chronic disease epidemiology area in order to translate scientific evidence into community-based prevention activities – and evaluate them to turn the lessons learnt into evidence again.



A/Professor Flavia Cicuttini
MBBS(Hons), PhD, MSc,
DLSHTM, FRACP, FAFPHM
Head of Musculoskeletal Unit

Member -

- Royal Australasian College of Physicians Research Advisory Committee (Chair)
- National Arthritis and Musculoskeletal Conditions Advisory Group
- Monash University professorial promotions committee
- Victorian Consortium of Public Health

Flavia is also Head of the Rheumatology Unit, Alfred Hospital. She is a member of the NHMRC Research Fellowships Advisory Panel, Royal Australasian College of Physicians Research Advisory Committee and Jacquot Selection Committee, RACP, and OARS! study group on osteoarthritis of the hand.



Associate Professor Andrew Forbes
BSc(Hons), MSc, PhD
Head of Biostatistics Unit

Andrew joined Monash University in January 1992 after completing a PhD at Cornell University in 1990 and then working at Ciba-Geigy Pharmaceuticals in the USA as a postdoctoral fellow until 1991. He heads the Biostatistics Unit, which consists of 4.5 full-time staff. He has active roles in applied biostatistics coursework development and teaching for postgraduate students in health / clinical research, undergraduate students in medicine and biomedical science, and postgraduate students in biostatistics. He is a chief investigator on a number of major research projects in the Department, pursues methodological research in applied statistics, and is active in statistical consulting within the Faculty of Medicine, its affiliated institutes, and for external bodies.



Dr David Goddard
MB BS BmedSc
DipOccupHealth GradCert
Higher Ed, FAFOM, RACP

David Goddard graduated in medicine from Monash University in 1969. Post-graduate coursework led to his obtaining a Diploma in Occupational Health (University of Sydney, 1975) and a Graduate Certificate in Higher Education (Monash University, 2000). David has worked in occupational medicine since 1973. His years of experience with the railways, State Government Occupational Health Service and State Worker's Compensation system have afforded a useful backdrop to his role as a teacher. David teaches medical undergraduates in occupational health and public health, and postgraduate students in occupational health. He loves teaching and puts substantial effort into preparing notes, presentations and assessments for his students. In 2001, he was successfully nominated by his medical students for the Monash University Vice-Chancellor's Award for Distinguished Teaching.



Professor Henry Krum
MBBS, PhD, FRACP
Head of Clinical
Pharmacology Unit
Director of the Centre of
Research Excellence in
Therapeutics.

Member -

- Pharmacy & Therapeutics Advisory Committee, Alfred Hospital
- Division of Medicine, Quality and Audit Committee

Chair -

- Organising Committee 4th Asian Pacific Conference on Heart Failure

Ex Chair - Heart Failure Working Group, Cardiac Society Australia & New Zealand

Henry is also Head of Clinical Pharmacology at the Alfred Hospital; Adjunct Assistant Professor of Medicine, Division of Circulatory Physiology at Columbia University College of Physicians and Surgeons, Consultant physician at the Alfred Heart Failure Centre, the Alfred Baker Medical Unit and the Alfred Healthcare Group.



Dr Karin Leder
MBBS(Hons), FRACP, MPH
Head of Infectious Disease
Epidemiology Unit

Karin graduated in medicine from Monash University in 1990 and undertook her medical specialist training in infectious diseases at Fairfield Hospital and Monash Medical Centre. She spent 3 years as an Infectious Disease Fellow at the Beth Israel Deaconess Medical Centre in Boston and completed a Master of Public Health at Harvard University.

Her specific areas of interest include traveller's health, health issues in immigrants and refugees, and waterborne infections. Karin is also a visiting specialist physician at the Royal Melbourne Hospital.



Associate Professor Bebe Loff
BA LLB, MA(Med Law & Ethics), PhD
Head of Human Rights and Bioethics Unit

Member -

- Standing Committee on Ethics in Research involving Humans, Monash University

Bebe coordinates the Master of International Health and the Master of International Research Bioethics. Prior to joining Monash she was responsible for the legislative programmes of Ministers of Health in Victoria. She has worked in various capacities for a number of United Nations agencies including WHOrganization, the Office of the High Commissioner for Human Rights and UNAIDS. She has been a member of several ethical review committees including that of the World Health Organization, the Australian Health Ethics Committee (a principal committee of the NHMRC) and has recently joined the Standing Committee. In addition, she was for a time, an Australian correspondent for The Lancet and a regular human rights commentator.



Dr David Newman, MBBS,
DipAvMed, PhD
Head of Aviation Medicine Unit

Member

- Aerospace Medical Association.

David Newman spent over 12 years in the RAAF as a medical officer and aviation medicine specialist. He completed aviation medicine courses in the US and UK, including the Diploma of Aviation Medicine through the Royal College of Physicians, London.

David completed his PhD in physiology and is a member of the He is an active pilot and has flown 150 hours in high performance aircraft such as the F/A-18 and Harrier. David is coordinating the Australian Certificate of Aviation Medicine course which is run by this Department.



Associate Professor Chris Reid, BA, DipEd, MSc, CertHealthEcon, Phd Associate Director of the NHMRC Centre of Clinical Research Excellence in Therapeutics based at DEPM

Member,

- Steering Committee REACH International Registry
- Steering Committee HOPE 3 Study
- ANBP2 Management Committee
- ASPREE Steering Committee

Before coming to DEPM, Chris was Director of the 2nd Australian National Blood Pressure Study and Program Director of the Australian Society of Cardiothoracic Surgeons Victorian database. Over the past ten years, his work has lead to the development of a series of clinical tools for general practitioners to assist in the uptake of evidence-based management of both primary and secondary prevention of cardiovascular disease. He has been invited to give 8 international and 26 national lectures and has participated as a WHO consultant for prevention of cardiovascular disease in both Mongolia and Vietnam.



Professor Brian Priestly BPharm, MPharm, PhD Head, Australian Centre for Human Health Risk Assessment (ACHHRA)

ACHHRA is a consortium of four Australian Universities with expertise in toxicology and environmental health sciences. It is hosted by the Department of Epidemiology & Preventive Medicine with partners from EnTox (UQ), the Department of Environmental Health (Flinders University) and the Faculty of Environmental Sciences (Griffith University). ACHHRA's objective is to provide a national focus for human health risk assessment, primarily in the area of food and environment pollutants, and to contribute to workforce development in HHRA.

Prior to leading ACHHRA, Brian was Director of the Laboratories Branch in the Therapeutic Goods Administration (TGA) from 2001-2003. From 1992-2001, he was Scientific Director of the chemicals toxicology and chemicals risk management programs of the Commonwealth Health portfolio.



Professor Malcolm Sim BMedSc, MBBS, MSc, GDipOccHyg, MSc, PhD, FAFOM, FAFPHM, FFOM

Director, Monash Centre for Occupational and Environmental Health (MonCOEH)

Research interests include human health effects of occupational and environmental chemical and other exposures, occupational disease surveillance, veterans' health and exposure assessment. He is Principal Investigator for the Healthwise and Health Watch cohort studies and studies of lead and agricultural workers. His veteran health group was awarded the Victorian Public Health Research Excellence Award in 2005 for the Australian Gulf War Veterans' Health Study. Malcolm is Associate Editor for the journal Occupational and Environmental Medicine. He is course coordinator for the Masters degree in Occupational and Environmental Health at Monash and has been very active in the Australasian Faculty of Occupational Medicine of the Royal Australasian College of Physicians, for which he was awarded a College Medal for outstanding service in 2003.

Senior staff 2005 continued



Professor Just Stoelwinder
MBBS, MD, FRACMA,
FACHSE, FAFPHM
Head of Health Services
Management Unit

- Director, Medibank Private Limited, Chair of their Product, Benefit and Innovation Committee and Member of the Audit and Risk Management Committee and of the Nomination, Remuneration & HR Committee.
- Member, Research Committee, The Actuarial Research Centre of Australia

His past appointments include Professor and Head of the Health Service Management Development Unit at Flinders University and formerly a Board Member of the Private Health Insurance Administration Council. For over 16 years, he was Chief Executive Officer of the Southern Health Care Network, and its antecedent teaching hospitals, the Monash Medical Centre and the Queen Victorian Medical Centre.



Professor Andrew Tonkin
MBBS, MD, MRACP, FRACP
Head of Cardiovascular
Research Unit

- Recently retired Chief Medical Officer of the National Heart Foundation of Australia
- Chair of the Steering Committee for National CVD Monitoring Systems
- Chairman of the Management Committee of the LIPID study, conducted since 1990 in over 9000 heart disease patients, and the largest cardiovascular clinical trial conducted in this country.

Andrew has chaired a number of NHMRC and NHF cardiovascular guideline groups.



Associate Professor Rory
Wolfe, BSc, PhD
Senior Lecturer & PhD
Program Coordinator

Rory gained a PhD in Applied Statistics from Southampton University, UK, in 1996. His thesis focussed on the analysis of ordinal outcomes observed on repeated occasions. He spent 3.5 years as a postdoctoral research fellow at the Royal Children's Hospital in Melbourne, and since 2000, has been a Senior Lecturer in this Department. He is responsible for providing statistical support for a wide range of epidemiological and clinical research studies, and also teaches basic biostatistics to medical undergraduates and postgraduate students. Rory is a member of the Royal Statistical Society (UK) and the Statistical Society of Australia.

List of all staff 2005

Head of Department

Professor John J McNeil MBBS MSc PhD FRACP FAFPHM

Deputy Head of Department

Michael Abramson MBBS(Hons), BMedSc, PhD, FRACP, FAFPHM

Executive Research Manager

Elizabeth Douglas BA, GradDipHealthPsych, PhD

Administrative staff

Jane Ball - MONCoeh
Carolyn Barrie - Marketing and short courses
Hayley Bunker - PA to HOD (left in 2005)
Rosalie Clementson - MONCoeh
Sabina Davey - Reception
Kaylene Hanlon - Undergraduate Administration
Jo Harwood - Project Officer - Clinical Pharmacology
Natalie Holsinger - Human Resources
Christine Kirkham - PA to HOD
Lizbeth Moon - Finance Manager
Mimi Morgan - Trauma Unit
Vanessa Murray - Project Coordinator, MonCOEH
Maida O'Keefe - Postgraduate teaching
David O'Reilly - Project Officer - Clinical Pharmacology
Catherine Pound Postgraduate teaching
Anna Sutjiadi - Finance Officer
Doris Toh - Project Officer - Clinical Pharmacology
Laura McCormick - Admin assistant

IT Staff

Colin Fee - IT Manager
Andrew Hannaford - Data Manager, Trauma Unit
David Khuu - IT support
Irshad Ali - Trauma Unit
Kunnapoj Pruksawongsin - Trauma Unit

Professors

Michael Abramson MBBS(Hons), BMedSc, PhD, FRACP, FAFPHM
Peter Cameron MBBS, MD, FACEM
Flavia Cicuttini MBBS (Hons) MSc PhD DHTM FRACP FAFPHM
Henry Krum MBBS, PhD, FRACP
Brian Priestly BPharm, MPharm, PhD
Malcolm Sim BMedSc MBBS MSc GDipOccHyg PhD FAFOM FFOM FAFPHM
Just Stoelwinder MD, MBBS, FRACMA, FACHE, FAFPHM

Andrew Tonkin MBBS, MD, MRACP, FRACP
Paul Zimmet, AO, MD, PhD, FRACP, FRCP, FACE, FAFPHM

Associate Professors

Rachelle Buchbinder MBBS (Hons) MSc (Clin Epi) FRACP
Andrew Forbes BSc (Hons) MSc PhD
Maximilian de Courten MD MPH
Chris Reid BA, DipEd, MSc, CERTHE, PhD
Rory Wolfe BSc, PhD

Senior Lecturers & Senior Research Fellows

Michael Bailey BSc(Hons), MSc(Stats), PhD
Geza Benke BSc, MAppSci, GDipQuanMeth, FAIOH, PhD
Neville Betts BA, GDipOccHazMan, MBA, CFSIA
Baki Billah PhD, MAS
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Lisa Demos BPharm, GDipHospPharm, PhD
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Elizabeth Kennedy BA, LL.B(Hons), LL.M(Melb), GradDipHealthMedLaw
Mary Lawson BSc(Hons)
Karin Leder MBBS(Hons), FRACP, MPH
Danny Liew BMedSc, MBBS(Hons), FRACP, PhD
Bebe Loff BA LBB, MA(Med Law & Ethics), PhD
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David Newman MBBS, DipAvMed, PhD
Alice Owen BSc(Hons), PhD
Anna Peeters BSc, PhD
Louise Prentice MBBS, FRACP
Deborah Roberts MBA, MPH, PhD
Louise Shiel BSc, GradDipAppSci, GradDipEd(Sec)
Martha Sinclair BSc(Hons), PhD
Bing Wang PhD, MSc, BSc
Owen Williamson MBBS, GDipClinEpi, FRACS
Robyn Woods BSc(Hons), PhD
Julie Yallop NZRN
Deborah Zion BA(Hons), MA, PhD

Lecturers & Research Fellows

Emma Ashton BAppSc PhD
Tai-Juan Aw MBBS, FRACP
Melissa Barber BSc(Hons), PhD
Jill Blackman BA(Psych), GradDipBHLth, PhD
Angela Brennan RN
Jahar Choudhury MSc, PhD
Andrea Curtis BSc(Hons), PhD BSc(Hons)
Martine Dennekamp MSc, PhD
Sue Evans BN, GDipClinEpi
Belinda Gabbe MAPPSc, BPhysio, PhD
Linton Harriss MPH, GradDipClinEpi, DipAppSci(Nursing)
Lucinda Franklin BA
Giuliana Fuscaldo BSc, MBioethics, PhD
Koraly Giuliano BBS, BSc (Computing)
Andrew Harford BAppSci(Hons), PhD
Renea Johnston BSc(Hons), PhD
Andrew Kompa BSc, PhD
Dianna Magliano BAppSc(Hons), PhD
Adam Meehan AppSci, CompSci
Dean McKenzie BA(Hons)
Helen Potts MTropHlth, LBBS, RN
Samantha Rizak BA, BAsC, MSc
Margaret Stebbing RN, DipAppSci, MPH
Maxine Szramka
Donna Urquhart BPhysio(Hons), PhD
John Varigos BSc(Hons)
Elisa Wood MA AppSc, GDipEpi
Anita Wluka MBBS, PhD, FRACP
Tsharni Zazryn BAppSci

Research Staff

Allison Beauchamp BHLthSci, CCNCert,RN
Travis Bloom
Naomi Cooke BApSci, BSci
Joanne Croucher BSc, BA
Christina Dimitriadis BAppSci
Anthony Del Monaco BSc(Hons), GDipComp, MPH
Karen Duve DipGenNursing
Rosie Gehrig-Mills RN, GradCert(CritCare), ADA(AppPhot)
Judy Hankin BA(Psych), RN
Alison Hayes RN
Paul Lacaze BSc
Louisa Lam RN, BHSc, GradDip(Coronary Care), MPH
Deirbhile Lavin BA, MHLthPsych
Philippa Loane BBMedSci
Pam Lightbody BSc
Susan McLellan RN
Ewan MacFarlane BSc, MPH
Kevin Morris MEng, FIEAust, CPEng
Emily Mulholland BA, BSc
Louise Phillips BSc(Hons), PhD
Emily Sim
Pam Simpson BSc(Hons)
Marina Skiba BEd(Sec)
Liz Stewart BAPsych(Hons)
Anne Sutherland RN, RM, AdCertMgmt, GDipOccEH&S
Yuanyuan Wang MMed, MBBA
Lainie Wengier BSc, MBioMedSci
Cameron Willis BPhysio

Jennifer Coghlan



Anita Wluka



Christina Dimitriadis



Visiting Academics

Brian Dulin (USA)
Iris de Ridder (Holland)
Nimalka Hetti (Sri Lanka)
Gamini Jayakody (Sri Lanka)
Arintaya Phrommintikul (Thailand)
Sylvia Schick (Germany)
Nazria Shahim (Sri Lanka)

Doctoral students

Zahid Ansari	Ken Karipidis
Kathryn Antioch	Narges Khanjani
Chris Barton	Helen Kelsall
Charmian Bennett	Danny Liew
Jillian Blackman	Megan Lim
Frank Buchanan	Bebe Loff
Rachelle Buchbinder	Ewan Macfarlane
Jessica Chellappah	Melanie Matheson
Lei Chen	Dean McKenzie
Jennifer Coghlan	Joanne O'Toole
Helen Cuddihy	Alex Padiglione
Glenn Doolan	Tina Racunica
Adam Dowrick	Sam Rizak
Greg Duncan	Margaret Stebbing
Andrea Fradkin	Rwth Stuckey
Michael Glisson	Robyn Tapp
Rebecca Guy	Ogilvie Thom
Steven Haas	Nicholas Thomson
Guy Haller	Nicholas Walsh
Fahad Hanna	Tsarni Zazryn
Linton Harriss	Hendrik Zimmet
Peter Higgs	
Imo Inyang	
Catherine Joyce	



Sabina Davey

Baki Billah



Louisa Lam



Jessica Chellappah



Honorary Staff 2005

Honorary Professors

Prof John Catford MA, MSc, MBChir, DCH, DM, FFPHM, FRCP, FAFPHM, FIPAA, FAICD

Prof Mark Elwood BSc(Hons), MBCh, SM, MD, DSc, MBA, FRCP, FAFP

Prof Kit Fairley MBBS, FRACP, FAFPHM, Ph D, FACHSHM

Prof Caroline Finch BSc(Hons I), MSc, PhD, FASMF, ASTAT

Prof Graham Giles CertEd, BS, MS, PhD

Prof Lindsay Grayson MBBS, FRACP, FAFPHM, MD, MSc

Prof Steve Hrudehy PEng, DSc(Eng), PhD, FRSC

Prof David Hill MA, PhD

Prof Joseph Ibrahim (Adjunct) MBBS, GradCertHigherEd, PhD, MRACMA, FAFPHM, FRACP

Adjunct Prof Rob Moodie MBBS, MPH, F(FPHM)RACP, FRACGP, FAIM

Prof Paul Myles MBBS, MPH, MD, FRACSI, FANZCA, FRCA

Prof Frank Rosenfeldt MBBS, MD (Adel), FRCSE, FRACS.

Prof Richard McK. FSouthby PhD, MPA, FCHSE, FCLM (Hon), FFPH, FRSM, FRIPH.

*Prof Mark Wahlqvist

Prof Fellow Michael Wooldridge MBA, MBBS, BSc, RACP, RACMA

Prof John Zalcborg MB BS PhD FRACP

Honorary Associate Professors, Honorary Associates

Dr Michael Ackland MBBS (Melb), MPH(Monash), FAFPHM

Dr Stephen Bernard MBBS, FACEM, FJFICM

Clin A/Prof Steve Bolsin, BSc, MBBS, FRCAL, RACMA, ANZCA

A/Prof Nicholas Crofts MBBS, MPH, FAFPHM

A/Prof Suzanne Garland MBBS, FRCPA, MASM

A/Prof Robyn Guymer MBBS, PhD, FRANZCO

A/Prof Chris Gray PhD

A/Prof William Hart MBBS, MAPsS, FAFPHM

Dr Kim Hill MBBS, MHP, FRACMA

Dr Jan Hoving

Mr Damien Jolley MSc, Mc, DipEd, CStat

Mr Bruce Levy BEc, LLB

A/Prof Harry Mond MBBS MD FRACP FACC FCSANZ FHRS

Mr Alex Proudfoot

Clin A/Prof Colin Russell MB ChB(Glasgow), FRACS MS (Monash), Grad Dip Bus (RMIT)

Clin A/Prof Robert Salamonsen MBChB, MD, FJFICM, Cert Hyp Med, FFICANZCA, FANZCA, FFARACS

Dr Jonathan Shaw MD, MRCP(UK), FRACP

Clin A/Prof Denis Spelman MBBS, FRACP, FRCPA

A/Prof Philip Stokoe MBBS, DPH, MSc, MPH

A/Prof Merlin Thomas MBChB, PhD, FRACP

A/Prof Michael Toole B Med Sci, MB BS, DTM&H (London).

A/Prof Theo Vos MD, MSc, PhD

Dr Michael Walsh MBBS(Hons), BHA, MPA, FRACMA

Honorary Clinical Teacher

Dr Andrew Prancunas

Honorary Senior Lecturers

Dr John Amarena

Dr M Zahid Ansari MBBS, MPH (Yale), MS (Washington)

Dr Kathryn Antioch BA(Hons), MSc, AFCHSE, CHE, PhD

Dr Emilio Badoer BSc(Hons), PhD

Dr David Barton MBBS, MSc, FACOM, MFOM

Dr Stephen Bernard

Dr James Black MBBS(Hons), PhD, MCommH, PhD DTM&H FAFPHM

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Dr Pauline Branley MBBS, PhD, FRACP

Dr Malcolm Brown MBBS DOH FAFOM

Dr Robin Burns BA(Hons), DipEd, MSc, MPH, PhD

Dr John Clements MBBS, MSc, DCH, DObst, LRCP, MRCS, FAFPH, MFPH, MCCM

Dr Barbora De Courten BA, MBA

Dr Peter Deutschmann MBBS, FRACS, MPrimCare

Dr Sherene Devaneson MBBS, Dip (Obs) RACOG, FRACMA, FCHSE, FAIM, FHKCCM

Dr Tim Driscoll BSc(Med) MBBS MOHS PhD FAFOM FAFP

Dr Margaret Hellard MBBS FRACP PhD FAFPHM

Dr Wendy Holmes MBBS, MSc

Dr Joseph Ibrahim MBBS, GradCertHigherEd, PhD, MRACMA, FAFPHM, FRACP

Dr Karen Jandeleit-Dahm MD, PhD

Mr Don Kay SBHA, MHA, MSc

Ms Helen Kemp BA, MBA

Dr Trish Livingston BA(H), PhD

Dr Kevin MacDonald BMedSc, MBBS, FAFOM

Dr Anne-Marie Pellizzer MBBS, FRACP, PhD

Dr Caroline Marshall MBBS, PhD, FRACP

Dr Roderick McRae BMedSc, MBBS, MBioeth

Dr Jeremy Millar GradCertHlthEc GradCertBiostat BMedSci MB ChB FRANZCR FACHPM

Dr David Newman MB, BS, DAvMed, PhD, MRAeS, FAICD, AFAM

Dr Josef Reum, BA, MA, PhD

Dr Deborah Roberts

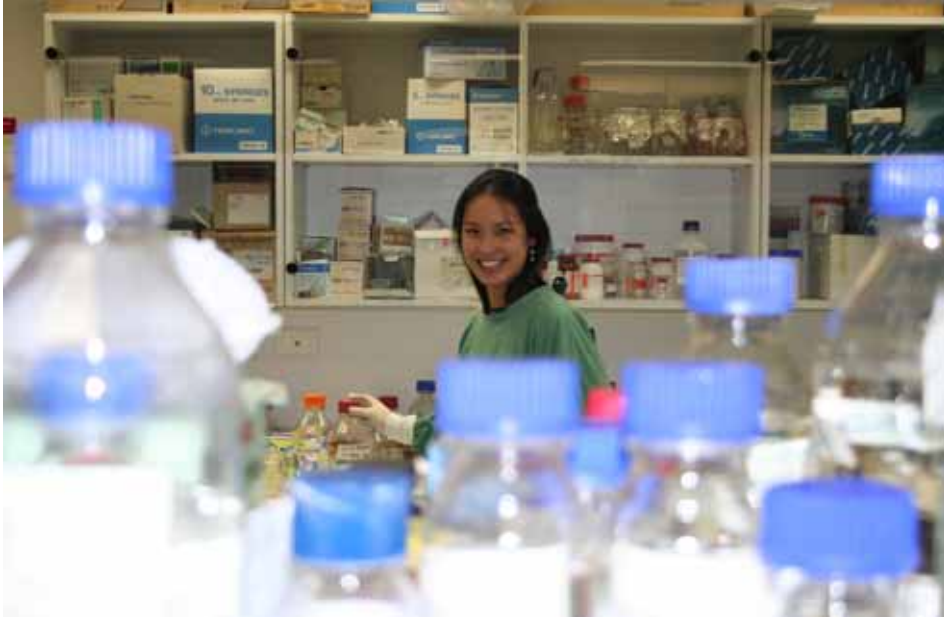
Dr Karen Smith SC(Hons) Grad Dip Epi and Biostats, GradCertExec, BA, PhD

Dr Beverley Snell MappSc
Dr Anthony Stewart MBBS, MAE
Dr Paul Talman BSc, MBBS, FRACP, PhD
Dr Amanda Thrift BSc(Hons), PhD
Dr Sara Watson MBChB, BSc, MHA, FRACMA
Dr Heather Wellington MBBS, BMedSc, BHA, FRACMA
Dr Joanne Williams BSc(Hons), MAppEpi, PhD
Dr Alan Wolff MB BS DipRACOG FRACGP MBAAFCHSE
MRACMA
Mr Michael Wright

Honorary Lecturers

Dr Campbell Aitken, *PhD, BSc(Hons)*
Ms Emma Ashton
Mr Stephen Begg *BA(Hons), MPH*
Ms Shin Choo *BPharm, GradDipHosPharm, CertHlthEco*
Dr Noel Cranswick *MBBS, B Med Sc, FRACP*
Dr Margaret Curran *MBChB, MPH, FRCPath, FFPM*
Dr Fabian Dalais *BSc(Hons), PhD*
Dr David Dunstan *PhD*
Dr Simon Fisher *MBBS, MBA*
Dr Robyn Horsley *MBBS FAMAS FAFOM (RACP) MPH GRAD
DIP MSM*
Dr Peter Kamen *MBBS*
Dr Martyn Kirk *BAppSc, MAppEpi*
Dr David Kong *GCHE, BPharm, MPharm, PhD*
Dr David Kotzman *BMedSc(Hons), MBBS, MPH, FAFOM,
FAFPHM*
Dr Robert Lew *MBBS PhD FCSANZ FRACP*
Dr Clement Malau *BBS, DTM&H and MPH*
Dr Chris Morgan *MBBS (Sydney) DTCH (Liverpool) FRACP*
Dr Damien Morgan *RN, BEd, PhD*
Ms Lisa Natoil, *MPH, Dip App Sci Nursing*
Dr Peter New *MBBS, FAFRM, GDipClinEpi*
Dr Raj Perera *MBBS, MSc, MD*
Dr Priscilla Robinson *RN, BNurs, MPH, PhD*
Dr Gayle Savige
Mr Richard Skiba *BEd(Sec), MDistEd, MEd*
Dr Helen Sutcliffe *MBBS, FAFOM*
Ms Loretta Vaughan *BAppSc, MPH*
Dr Elmer Villanueva *MD, ScM*
Ms Nicole Watson *BSc(Hons), GDipManSci*
Dr David Weissman *MBBS, MPM, FRANZCP*
Dr Mary Wyatt *MBBS (Hons) MPH, Grad Cert MSM, FAFOM*

Breadth of research



- Aviation medicine
- Biostatistics
- Cardiovascular medicine
- Clinical epidemiology
- Clinical pharmacology
- Clinical registries
- Clinical trials
- Emergency medicine
- Environmental health
- Epidemiological modelling
- Health policy development
- Health economics
- Health promotion

Centres and major partnerships

The Australian Centre for Human Health Risk Assessment

NHMRC Centre for Clinical Research Excellence in Therapeutics

NHMRC Centre for Research Excellence in Patient Safety

NHMRC Australian & New Zealand Intensive Care Research Centre

Monash Centre for Occupational & Environmental Health

Cooperative Research Centre for Water Quality and Treatment

The Australian Centre for Radiofrequency Bioeffects Research

Victorian Orthopaedic Trauma Registry

Victoria State Trauma Registry



- Health risk assessment
- Health services management
- Human rights & bioethics
- Infectious diseases
- Intensive care research
- Occupational health
- Prehospital care
- Preventive medicine
- Primary health care in developing countries
- Respiratory epidemiology
- Rheumatology
- Sports injury prevention
- Veterans' health



The variety of research projects carried out in the department reflects the specialist training of our senior academic staff.

We are among the most successful Monash University departments in attracting external funding and undertake contract research and consultancies for a wide range of industry bodies and government departments.



Summary of research

Cardiovascular disease

- Collection of data for the Melbourne Collaborative Cohort Study – involving 41,500 people to study the causes and improve prediction of heart disease.
- Low dose aspirin trial for possible benefits to the elderly in reducing heart disease and other chronic diseases.
- As part of a world wide study including 200 hospitals, families of patients with heart disease are trained to use portable defibrillators before calling for emergency help.
- An Australia wide telephone patient monitoring system is being trialled for chronic heart failure patients in rural areas.
- Study of a common treatment for schizophrenia and possible side effects including myocarditis.
- Involved in programs for managing kidney disease, hypertension, diabetes and cardiovascular disease in developing countries.
- Coordination of international kidney disease trials in Asia Pacific Centres.
- Review of lipid lowering therapies in Australia for prevention of cardiovascular disease.
- The use of aspirin or tranexamic acid in patients undergoing heart bypass surgery.

Arthritis /Osteoarthritis

- The effect of hormonal changes on joint cartilage in healthy women.
- The effect of diet and physical activity on knee cartilage.
- Effectiveness of physiotherapy for chronic rotator cuff problems.
- A national registry to collect information on inflammatory arthritis.
- Shock wave therapy in the treatment of tennis elbow.
- MRI in diagnosis of knee osteoarthritis.

Respiratory disease

- Genetic and environmental risk factors for chronic respiratory disease.
- Management of chronic respiratory disease in general practice.
- Airborne particle exposure and lung function.
- Evaluation of spirometry for the management of respiratory diseases.

Environmental health

- A partner in the Australian Centre for Radiofrequency Bioeffects Research carrying out surveillance of mobile phone users, including a study of secondary school students.
- Organochlorines and breast cancer.
- Water reuse and alternative water sources – risk assessment of using recycled water.
- The health effects of rainwater consumption.
- Ultrafine particles and health problems.
- Electromagnetic fields and the possibility of adverse health effects.
- Aviation medicine, passenger fitness to fly and human factors in aviation.

Infectious diseases

- Clinical data management of a study testing an anti-viral drug for chronic Hep B in Malaysia.
- Ethnic Vietnamese drug users and blood borne diseases: a study of culture and risk.
- Assessing and reducing the sexual risk behaviour of young men and women.

Occupational Health

- Pesticides and cancer in fruit growers.
- A study of Gulf War veterans.
- Korean war veterans study.
- Aluminium employees - a study of their health and work.
- A health study of employees in the petroleum industry.
- A study of brain injury in boxers.
- Aviation medicine - human factors in aviation.

Research with international links

- Public health implications of the amphetamine epidemic in Northern Thailand.
- Clinical data management of a study testing an anti-viral drug for chronic Hep B in Malaysia.
- As part of a world wide study including 200 hospitals, families of patients with heart disease are trained to use portable defibrillators before calling for emergency help.
- Involved in programs for managing kidney disease, hypertension, diabetes and cardiovascular disease in developing countries.
- Coordination of international kidney disease trials in Asia Pacific Centres.

Patient care

- The Australian and New Zealand Intensive Care Research Centre established in the Department in 2005.
- Severe head injury patients and prehospital intubation.
- Monitoring of the State trauma system in Victoria.
- Infection in trauma patients.
- Decompressive craniectomy to improve long term neurological outcome in patients with severe traumatic brain injury.
- Evaluation of therapies used in healing of chronic wounds.
- The influence of gender on recovery from general anaesthesia.
- Mild hypothermia in the emergency treatment of cardiac patients.
- The risk factors for surgical site infections in coronary artery bypass graft surgery.

Research highlights 2005



Centre of Research Excellence in Patient Safety

The NHMRC Centre of Research Excellence in Patient Safety was established in 2005 to design, conduct, promote and promulgate high quality multi-centre research to improve quality, safety, efficiency and effectiveness of health care for Australians.

Funding for this national centre was provided by the Australian Council for Safety and Quality in Health Care (now the *Australian Commission on Safety*) and awarded through the NMHRC. The consortium includes a team of experts in health care risk management and an advisory group including patient safety specialists from the UK and the US.

The Centre will investigate major risk areas, including trauma resuscitation, clinical hand over and medication delivery. It will research issues that may compromise patient safety, and develop interventions to improve health care quality in Australian hospitals.

www.CREPatientSafety.org.au

Monash Centre for Occupational and Environmental Health (MonCOEH)

MonCOEH was formerly the Unit of Occupational and Environmental Health and was conferred Centre status in August 2005 in recognition of its active research, teaching and advisory programs in occupational and environmental health. Professor Malcolm Sim is Director. Research interests span aetiological studies in industry groups to identify occupational risk factors for disease, veteran and military health research, occupational disease surveillance, exposure assessment, environmental health hazards and risk assessment.

Community Clinical Trial Centre planned for Caulfield

The CCRE in Therapeutics made plans in 2005 to open a Community Clinical Trial Centre at the Caulfield General Medical Centre. Louise Shiel was appointed to manage the Centre which has been set up with collaborative partners – the Cardiovascular Disease Prevention Unit, Baker Heart Research Institute and the Melbourne University Department of Ophthalmology.

ANZIC-RC established.

The Australian and New Zealand Intensive Care Research Centre (ANZIC-RC) was established in October 2005 with funding from an NHMRC Enabling Grant.

The grant was received in recognition of the track records in clinical research of the founding chief investigators, the outstanding productivity of the ANZICS Clinical Trials Group, and the perceived potential to build a new high quality national resource with potential benefits to Intensive Care clinicians across the country.

Health Watch moves to DEPM

The Health Watch study moved to DEPM in June. Health Watch is a prospective cohort study of employees in the Australian petroleum industry, beginning in 1981 under the leadership of Professor David Christie at the University of Melbourne, and in 1999 transferring to Adelaide University. Following the retirement of the Director, Dr Richie Gun, the study transferred to MonCOEH under the directorship of Professor Malcolm Sim and Dr Deborah Glass.

Victorian Orthopaedic Trauma Outcomes Registry (VOTOR)

VOTOR aims to investigate the nature, extent and outcomes of orthopaedic admissions to all Victorian public and private hospitals using the Victorian Admitted Episodes Dataset.

This research is critical to assessing hospital performance and standards of care for orthopaedic conditions, and ultimately, maintaining and improving cost effective quality management of these conditions in Australia.

Victorian Public Health Award for Research Excellence 2005

The Australian Gulf War Veterans' Health Study was awarded the 2005 Victorian Public Health Award for Research Excellence.

The award was presented to Chief Investigator, Professor Malcolm Sim, and the research team, by the Hon Bronwyn Pike at a ceremony on 8th November. Funded by the Commonwealth Department of Veterans' Affairs, it is the first comprehensive health study of an entire group of Australian War veterans involved in a single theatre of war.

The research was a collaboration between this Department, Health Services Australia Ltd, the Department of Public Health at the University of Western Australia and the Australian Centre for Posttraumatic Mental Health, University of Melbourne.

The study investigated the physical and psychological health of 1871 Australian veterans of the 1991 Gulf War compared with a comparison group of Australian Defence Force personnel operational at that time but who did not deploy to that conflict.

Below, receiving the award from The Hon Bronwyn Pike below are from left – Dr Harry Schwarz, Health Services Australia, Dr Deborah Glass, Assoc Prof Andrew Forbes, The Hon Bronwyn Pike, Dr Helen Kelsall, Ms Jill Blackman, Assoc Prof Malcolm Sim, Mr Dean McKenzie.

Korean War Veterans Study

A study of Korean War Veterans carried out by the Monash Centre for Occupational and Environmental Health found that more than 50 years after the Korean War ended, veterans suffer more psychological and physical illnesses and experience a poorer quality of life than similarly aged men who did not go to war.

This was the third and final study commissioned by the Australian Government's Department of Veterans' Affairs to assess the health of Australian veterans of the Korean War. Combined, the three studies represent one of the most comprehensive investigations of health in a veteran group ever conducted. More than 6000 veterans and 1500 members of the general population over 65 took part in the study.



Korean War veterans were found to be more likely to suffer posttraumatic stress disorder, anxiety and depression, and to report lower life satisfaction than similarly aged men who did not go to war.

Veterans who were engaged in heavy combat during the war were more likely to suffer posttraumatic stress disorder and anxiety or depression than the veterans who did not see combat.

The Home Automated External Defibrillator Trial (HAT) recruited first Australian patients

A chaotic heart rhythm leading to sudden cardiac arrest is the most common cause of early death in patients with heart disease. This multi-national, multi-centre study funded by the NIH, is testing whether lives are saved in patients with heart disease if an AED is present in the home. The study involves 200 hospitals in the US, Canada, UK, New Zealand and the first Australian patients were recruited in 2005. Patients will be randomised between the home AED group and the control group. In the AED arm, the spouse or home companion is instructed to deliver up to 2 shocks if directed by the AED before calling 000. In the control group 000 is called as usual. Professor Andrew Tonkin is Chief Investigator in Australia, and Julie Yallop the National Study Coordinator.



Research highlights continued

Research team investigates new HeartPOD™

Professor Henry Krum was involved with researchers at The Alfred in a world first trial to investigate whether the implantation of a specially designed HeartPOD™ monitoring system in heart failure patients can keep them out of hospital and lead to a better quality of life.

This system enables heart failure patients to personally monitor their condition and adjust their medication themselves without having to visit a doctor each time.

CHAT Study keeps patients in touch

Chronic heart failure is a major public health problem leading to frequent and costly hospital admissions, particularly within the context of an ageing Australian population.

The Chronic Heart failure Assistance by Telephone (CHAT) study is an innovative Australia-wide tele-monitoring system of care for the management of chronic heart failure patients, particularly those who live in remote areas or who have limited access to medical services.

The study is NHMRC funded and based in this Department with the national "CHAT - line" operated by trained cardiac nurses located at the National Heart Foundation's call centre Heartline'.

The study is the first of its kind where participants trained in the use of the TeleWatch™ incorporated voice response technology, call in regularly to have their health monitored by trained cardiac nurses.

Patients enter their responses to prerecorded, evidenced-based heart failure related questions using a touchtone telephone, and this information is assessed by pre-programming of the system according to the patient's overall health assessment. Chief Investigators are Professor Henry Krum, Professor Andrew Tonkin and Professor Leon Piterman.

Data registries

The Haemostasis Registry is one of many registries being managed by this Department, and was established to collect data on the use of recombinant activated factor VII (rFVIIa), which is marketed as NovoSeven®.

rFVIIa is approved for the treatment of spontaneous and surgical bleeding in patients with haemophilia A or B with antibodies to either factor VIII or factor IX. It enhances clotting at the site of bleeding through the formation of a firm fibrin clot, without systemic activation of the coagulation cascade.

Details of registries currently being managed by or associated with DEPM are on page 39.

Funding received for Australian satellite for Cochrane Group

Rachelle Buchbinder was awarded funding from the Commonwealth Department of Health and Ageing to establish an Australian satellite for the Cochrane Musculoskeletal Review Group (CMSG). The CMSG is based in Ottawa, Canada, and the Australian Satellite will facilitate increased involvement in The Cochrane Collaboration among Australian healthcare providers with an interest in musculoskeletal conditions including rheumatologists, orthopaedic surgeons, physiotherapists and chiropractors. Rachelle is Head of the Clinical Epidemiology Unit at Cabrini Medical Centre.

Rachelle was also awarded funding by the Victorian Orthopaedic Research Trust to run a trial of peri-operative pain management in patients undergoing elective rotator cuff surgery.

Study of mobile phones and secondary school students began.

The Mobile Radiofrequency Phone Exposed Users Study (MoRPhEUS) commenced fieldwork in 2005. Secondary school students in Year 7 are being monitored for symptoms, and physiological and cognitive factors, for an initial period of two years.

MoRPhEUS is part of the research program being carried out by the Australian Centre for Radiofrequency Bioeffects Research (ACRBR) established in 2004.

ACRBR is a consortium of RMIT University, Swinburne University of Technology, the IMVS in Adelaide, Telstra and this Department conducting a broad program of research into possible biological or health effects of exposure to radiofrequency waves, particularly from mobile telephones. Professor Michael Abramson is one of the Chief Investigators of ACRBR and together with Dr Geza Benke and Prof Malcolm Sim, an investigator of the MoRPhEUS Study.

ASPREE pilot study completed

ASPREE (or ASPirin in Reducing Events in the Elderly) is a large-scale double-blind controlled primary prevention trial in the elderly to determine the effect of low-dose aspirin versus placebo over a five-year treatment period.

The pilot study was completed in 2005, providing evidence for the feasibility of the wider study in 20,500 elderly subjects. The pilot study was conducted in 209 people with baseline and one-year follow-up measurements including clinical, demographic, cognitive function, neuropsychological, health behaviours and quality of life measurements.

Low dose-aspirin therapy has been shown to reduce the risk of vascular events in a wide range of primary and secondary settings and there is increasing evidence of its potential to reduce the rate of intellectual decline in older subjects and the incidence of specific carcinomas such as bowel cancer. Part of the benefit of aspirin may be offset by a variety of adverse effects related to increased bleeding and anaemia. Further funding support for ASPREE has been sought from international agencies and other local bodies.

Water reuse and alternative water sources: practices, risk assessment and human health

This study is funded by the CRC for Water Quality and Treatment and is assessing a number of factors related to water reuse and alternative water sources. It includes an assessment of current practices regarding recycling schemes and alternative water supplies and an exploration of the implications of these practices on exposure profiles to various microbiological pathogens and agents.

The project outcomes will provide better estimates of the true health risks from recycled water and individual project components will provide valuable input into quantitative microbial risk assessment determinations.

Developing evidence-based strategic water quality monitoring systems

Funded by the CRC for Water Quality and Treatment. At present, there is a lack of a fully informed strategic basis in the design of water quality monitoring programs or interpretation of monitoring results, typically resulting in the collection of large volumes of data that do not improve understanding of water supply systems.

This research will apply the well-established logic of diagnostic screening and evidence based decision making from the field of medical sciences to monitoring for drinking water quality hazards, interpretation of monitoring results and development of appropriate responses. It will enable better understanding of the capabilities, potentials, and limitations of monitoring systems for managing drinking water systems.



Research funding in 2005

Thankyou to all the organizations listed on the following pages who have generously funded our research.

[A health study of Australia's Gulf War veterans.](#)
Commonwealth Department of Veterans Affairs.
M Sim, J McNeil, L Fritschi, A Forbes, H Kelsall
2000 – 2006, \$721,134.00

[A prospective cumulative study of brain injury in boxers.](#)
NHMRC Scholarship
T Zazryn 2003 – 2006

[A randomised trial of core cooling versus surface cooling in comatose survivors of prehospital cardiac arrest.](#)
NHMRC Research Grant.
S Bernard, I Patrick, J Cooper, D Taylor, AM Kelly, W Silvester,
2003 – 2006, \$295,000.00

[A study of health and work in employees of Alcoa of Australia Ltd. \(Healthwise\)](#)
Alcoa Australia Ltd.
J McNeil, M Sim, L Fritschi, AW Musk
1994 – 2006, \$6,629,684.00

[A trial of prehospital rapid sequence intubation in patients with severe head injury.](#)
NHMRC Project Grant.
S Bernard, P Danne, K Smith
2004 – 2006, \$305,375.00

[ACHHRA-Australian Centre for Human Health Risk Assessment.](#)
Department of Health and Ageing Capacity Building.
J McNeil, M Sim, B Priestly
2001 – 2006, \$500,000.00

[An approach to understanding knee OA using MRI.](#)
NHMRC Project Grant.
F Cicuttini, G Jones
2004 – 2008, \$843,000.00

[ARAD Patient Registry.](#)
Australian Rheumatology Association (ARA).
Rachelle Buchbinder,
Christopher Reid.
2004 – 2005, \$80,000.00

[Assessment of the statistical methodology for designing and analysing population based preventive health intervention strategies.](#)
Monash Strategic Grants
A Forbes, S Green, C Forbes
2005, \$17,000.00

[Australian Centre for Health Care Innovation.](#)
Victorian Department of Science Technology and Innovation Capacity Building Grant. 2005 – 2007,
\$4,500,000.00

[Australian Centre for Radiofrequency Bioeffects Research \(ACRBR\); Mobile phone users surveillance study.](#)
NHMRC Centre for Research Excellence Grant.
I Cosic, M Abramson, R Croft, J Finnie, R McKenzie, A Wood
2004 – 2008, \$204,750.00

[Cochrane Musculoskeletal Review Group \(CMSG\), Australian Satellite.](#) Australian Government, Department of Health & Ageing.
R Buchbinder, P Tugwell, S Green, L Barnsley, J Youd, P Lowthian
2005 – 2008, \$132,000.00

[Brain naturetic peptide substudy.](#)
Pfizer Cardiovascular Lipid Research Grants.
D Liew, H Krum, H Schneider
2004 – 2006, \$100,800.00

[Cardiorespiratory effects of ultrafine particles.](#)
NHMRC Project Grant.
M Abramson, H Krum, R Wolfe, B Priestly
2005 – 2007, \$461,438.00

[CCRE in Women's Health NHMRC Capacity Building Grant.](#)
S Davis, R Bell, H Burger, J Hailes-Michelmore, E Simpson, J Kulkarni, F Cicuttini
2003 – 2008, \$2,000,000.00

[Centre for Health, Ethics and Human Rights.](#)
VicHealth Capacity Building Grant
B Loff.
2005, \$25,000.00

[Centre of Research Excellence in Patient Safety.](#)
NHMRC Capacity Building Grant.
J McNeil, P Cameron, D Campbell, S Duckett, P Myles, P Sanderson, J Stoelwinder.
2005 – 2010, \$3,000,000.00

[Characteristics of orthopaedic trauma and the evaluation of outcome.](#)
NHMRC Fellowship Grant
D Urquhart 2004 – 2007

[Computer image measurement of human knee cartilage.](#)
Monash Strategic Grants Scheme.
F Cicuttini, A Wluka, D Suter.
2005, \$40,000.00

[CRC-Health Stream Newsletter.](#)
CRC for Water Quality and Treatment.
M Sinclair, 1996 – 2008,
\$622,698.00

<p>Dietary risks and alcohol as determinants of cardiovascular disease in the Melbourne Collaborative Cohort Study. NHMRC Scholarship. L Harriss 2004 – 2006</p>	<p>Epidemiological research into nutrition and cardiovascular disease. NHMRC Fellowship. E Ashton 2003 – 2006, \$254,000.00</p>	<p>Health Watch Case Control Study. Australian Institute of Petroleum Ltd M Sim, D Glass 1999 – 2007, \$668,921.00</p>
<p>Effect of lifestyle factors on knee cartilage volume and rate of cartilage loss in a normal population. NHMRC Project Grant. F Cicuttini 2005 – 2007, \$233,726.00</p>	<p>Epidemiology of Diabetes Related Complications. Sidney Sax Fellowship R Tapp. 2005 – 2008</p>	<p>Home Automatic external defibrillator Trial. NIH, A Tonkin 2003 – 2007, \$175,000.00</p>
<p>Effect of Urotensin II receptor antagonism in a rat model of pressure-overload hypertrophy. Glaxosmithkline. H Krum 2005, \$45,000.00</p>	<p>Evaluation of Aspirin and Tranexamic Acid in Coronary Artery Surgery: The ATACAS Trial NHMRC Project P Myles, J Smith, J McNeil, J Knight, J Cooper, B Silbert, H Krum, A Tonkin, A Forbes, et al 2005 – 2007, \$1,170,000.00</p>	<p>Identification of blood serum and urinary biomarkers that are associated with osteoarthritis disease progression in a well established cohort of subjects with knee osteoarthritis. AstraZeneca Pty Ltd F Cicuttini, J Hankin, A Wluka 2005-2006, \$500,000.00</p>
<p>Effects of lateral wedged insoles on symptoms and disease progression in knee osteoarthritis. NHMRC Program Grant K Bennell, R Hinman, F Cicuttini, C Payne, A Harris 2005 – 2008, \$469,120.00</p>	<p>Evaluation of Nitrous oxide in the gas mixture for anaesthesia: A randomised controlled trial. NHMRC Project Grant P Myles, K Leslie, B Silbert, M Paech, P Peyton 2003 – 2005, \$465,000.00</p>	<p>Improving occupational exposure assessment. NHMRC Project Grant L Fritschi, G Benke, A Datta 2005 – 2007, \$330,825.00</p>
<p>Efficacy and cost-effectiveness of physiotherapy for chronic rotator cuff pathology. NHMRC Project Grant. K Bennell, R Buchbinder, S Green, A Harris, A Forbes 2004-2006 \$259,460.</p>	<p>Haemostasis Registry Project Novo Nordisk Pharmaceuticals P/L P Cameron, J McNeil, C Reid 2005 – 2006, \$373,288.00</p>	<p>Is the rate of rise in early morning blood pressure a potential risk factor? NHMRC Project Grant C Reid 2005 – 2007, \$392,700.00</p>
<p>Efficacy and safety of vertebroplasty for treatment of painful osteoporotic spinal fractures: a randomised trial. R Buchbinder, D Connell, R Osborne, JD Wark, PR Ebeling, SE Graves. NHMRC Project Grant 2004-2007 \$578,000.</p>	<p>Has there been a sustained change in doctors' beliefs about back pain four years after cessation of a population-based intervention? Arthritis Australia and Australian Rheumatologists Association Grant Buchbinder R 2005 \$15,000, and also ANZ Trustees Medical Research & Technology in Victoria Program – The William Buckland Foundation. Buchbinder R. 2005 \$11,500</p>	<p>Long-term implications of the increasing prevalence and duration of obesity for health in Australia: An aid to more effective and targeted prevention. VicHealth Fellowship A Peeters 2003 – 2007, \$500,000.00</p>
		<p>Measuring morbidity in a major trauma population Victorian Trauma Foundation. P Cameron, B Gabbe, O Williamson 2004 – 2005, \$153,250.00</p>

Research in 2005 continued

Monash University Master of International Research Bioethics

National Institutes of Health
B Loff
2002 – 2006, \$1,000,000.00

Monitoring and evaluation of the Victorian state trauma system (VSTORM).

Department of Human Services Victoria
J McNeil, K Smith, P Cameron, C Krettek, J Ozanne-Smith, P Danne, C Atkin, D Taylor, C Finch,
2000 – 2006, \$2,073,602.00

Multicentre randomised trial of early compressive craniectomy in patients with severe traumatic brain injury.

NHMRC Project Grant
J Cooper, J Rosenfeld, T Kossman, P Reilly, R Wolfe
2005 – 2007, \$463,098.00

National Centre for Intensive Care Research.

NHMRC Research Grant
R Bellomo, D Cooper, J Myburgh, S Finfer
2005 – 2010, \$1,290,000.00

NHMRC Fellowship

S Bernard 2005 – 2009

NHMRC Practitioner Fellowship.

R Buchbinder 2005-2009.

Novel therapeutic strategies to reduce the burden of chronic heart failure.

NHMRC Program Grant
H Krum, R Gilbert, S Itescu, S Radi
2005 – 2009, \$4,634,965.00

Novel experimental strategies combining MSC with angioblasts and cost-efficacy

in the treatment of congestive heart failure.

CSANZ Scholarship
H Zimet.

Paramedic prediction of severe injury and major trauma status.

Victorian Trauma Foundation
P Cameron, B Gabbe, O Williamson, S Bernard, K Smith, K Young
2004 – 2005, \$80,000.00

Pesticide exposure and cancer in fruit growers and orchardists.

Cancer Council of Victoria
G Benke, M Sim, D McKenzie
2004 – 2005, \$95,000.00

Promoting warming-up for sports injury prevention and performance improvement benefits: How should this be done?

NHMRC Scholarship
A Fradkin 2002 – 2005

Psychosocial factors, behaviours and cardiovascular disease.

NHMRC Fellowship
S Radi 2004 – 2005

Radiofrequency neurotomy as treatment for spinal joint pain Motor Accidents Authority of NSW.

J Hoving, 2005, \$39,250.00

Randomised double-blind placebo-controlled trial of aspirin in primary prevention of CVD events or dementia in the aged (ASPREE).

NHMRC Project Grant
J McNeil, A Tonkin, C Reid, H Krum, M Nelson, G Giles, A Jorm et al
2005 – 2009, \$3,503,500.00

Risk and determinants of fatal and non-fatal coronary heart disease in the Melbourne Collaborative Cohort Study.

NHMRC Project Grant
J McNeil, S Harrap, D Liew, D Magliano, T Welborn, T Wong
2005 – 2009, \$422,500.00

Risk and determinants of fatal and non-fatal coronary heart disease in the Melbourne Collaborative Cohort Study.

Australian Health Management Group
J McNeil, S Harrap, D Liew, D Magliano, A Tonkin
2005 – 2009, \$422,500.00

Risk factors for chronic respiratory disease in middle age: 36 year follow of Tasmania Asthma Study.

NHMRC Research Grant
M Abramson, S Dharmage
2004 – 2006, \$353,751.00

Role of musculoskeletal biomechanical factors in cartilage loss in those who undergo partial medical meniscectomy.

NHMRC Project Grant
F Cicuttini, K Bennell, A Forbes, D Lloyd, G Stachowiak
2005 – 2008, \$644,330.00

Role of p38 MAP Kinase in progression of cardiac dysfunction.

National Heart Foundation of Australia
H Krum, A Kompa
2004 – 2005, \$100,000.00

Temporal relationships between war exposures and stressors and subsequent psychological disorders and their relationship to physical indicators of ill health

Commonwealth Department
of Veterans Affairs
M Sim
2005 – 2006, \$60,000.00

[The Alberta Back Pain Initiative Study: A population based social marketing Intervention for the prevention of disability associated with back pain.](#) Alberta Heritage Foundation for Medical Research (Canada). Gross DP, Russell A, Ferrari R, Schopflocher D, Battié M, Condratow L, Buchbinder R, Hu R, Waddell G. 2004-2006 \$100,000CDN

[The Alfred/Monash Centre for Therapeutics and Clinical Research Excellence.](#) NHMRC CCRE
H Krum, J McNeil, A Tonkin, P Myles, J McNeil, A Tonkin, P Myles, F Cicuttini, A Forbes
2003 – 2007, \$2,000,000.00

[The effect of obesity on change in knee cartilage volume over 2 years.](#) Monash Strategic Grant. A Wluka, F Cicuttini
2005, \$35,000.00

[The effect of spinal trauma on the deep spinal musculature Monash Strategic Grant.](#) D Urquhart, F Cicuttini, P Cameron, P Hodges, O Williamson, T Kossman, J Hoving,
2005, \$35,000.00

[The effect of weight loss on knee cartilage volume.](#) Shepherd foundation
A Wluka, FCicuttini
2005 – 2007, \$65,000.00

[The effectiveness of calf muscle stretches for short-term treatment of plantar heel pain.](#) Australian Podiatry Education & Research Foundation. Radford JA, Landorf KB, Buchbinder R, Cook C. 2005 \$3,834.00.

[The epidemiology of chronic disease, health interventions and DNA studies \(ECHIDNAS\)](#) NHMRC Research Grant
G Giles, D Hill, D English, M Wakefield, J Hopper, J Jass, J McCallum, A Tonkin
2002 – 2006, \$625,000.00

[The epidemiology of diabetic complications in the Australian population.](#) NHMRC Scholarship Grant
R Tapp. 2004 – 2005

[The establishment of a Level 1 Trauma Centre Orthopaedic Registry to evaluate and monitor treatment effectiveness. \(VOTOR\)](#) Victorian Trauma Foundation
E Edwards, S Graves, O Williamson, M Richardson, T Kossman, P Cameron, F Cicuttini, J McNeil, D Urquhart, B Gabbe, J McNeil. 2003 – 2006, \$879,700.00

[The pharmacoepidemiology & cost effectiveness of drugs indicated and contraindicated in chronic heart failure.](#) NHMRC Scholarship
S Haas. 2003 – 2006

[The relationship between airborne particle exposure, incident respiratory symptoms and decline in lung function.](#) NHMRC Project Grant
M Abramson, R Wolfe, G Ayers, E Walters. 2003 – 2005, \$301,060.00

[The role of spirometry in managing chronic respiratory diseases in general practice.](#) NHMRC General Practice Clinical Research Program Grant. M Abramson, F Thien, N Sulaiman, E Side, R Aroni, R Wolfe, J Wicking, A Hussain, M De Clifford.
2005 – 2007, \$487,427.00

[The use of patient-completed outcome assessment instruments following upper extremity orthopaedic trauma.](#) Monash Postgrad Research Scholarship. A Dowrick 2005 - 2007

[The Victorian Cohort Study \(ViCS\)](#) National Heart Foundation of Australia Research
A Tonkin, J McNeil, S Harrap, H Krum, D Magliano, D Liew.

[Vaccinations and deployment - investigating the risks.](#) Commonwealth Department of Veterans Affairs Research
M Sim, 2005, \$50,291.00

[Water reuse and alternative water sources: Attitudes, practices, risk assessment and human health outcomes.](#) CRC for Water Quality and Treatment Scholarship
J O'Toole 2004-2007

Funding for research beginning in 2006

We had a very successful funding round in 2005 with staff being awarded two NHMRC Enabling Grants and six NHMRC Project Grants, along with several Fellowships.

[Australian Rheumatology Association Database \(ARAD\)](#)

R Buchbinder, C Reid. 2006-2010
NHMRC Enabling Grant.
ARAD is a national registry whose primary purpose is to collect long term information about the safety and effectiveness of new biological therapies for the treatment of inflammatory arthritis, this grant will allow enrolment of controls and provide more funding for local recruitment centres in each state.

[A pooled analysis of petroleum case-control studies.](#)

D Glass and M Sim (Monash), L Rushton (Imperial College, London), R Schnatter (ExxonMobil Biosciences)
CONservation of Clean Air and Water in Europe (CONCAWE)
European Oil Company
Organisation for Environment, Health and Safety Belgium

[Can patient self-management education programs improve outcomes of people with osteoarthritis?](#)

NHMRC Project Grant. RH Osborne, R Buchbinder, SE Graves. 2006-2008 \$372,152.

[The health effects of drinking rainwater.](#)

NHMRC Project Grant
Karin Leder, Martha Sinclair, Andrew Forbes, David Cunliffe. The main outcome of this study will be to determine whether drinking untreated water from rainwater tanks poses a significant health risk and if specific tank or maintenance characteristics

can be identified that increase illness risk.

[Health literacy in the general population.](#)

ANZ Trustees Medical Research & Technology in Victoria Program - HDT Williamson Foundation. R Buchbinder, R Osborne. 2006 \$20,000.
Ian Potter Foundation. R Buchbinder, R Osborne, C Elder. 2006, \$50,000.

[The health effects of using recycled water in domestic laundries and recreational parks. 1 year grant.](#)

NHMRC 1 year Project Grant
Karin Leder, Martha Sinclair, Michelle Critchley, David Cunliffe, Clare Diaper.
This study will help to determine the safety of using recycled water for rinsing clothes during a washing machine cycle.

[Occupational exposure to lead compounds and human cancer. 2 year grant](#)

NHMRC Project Grant
Malcolm Sim, Geza Benke, Lin Fritschi.
\$220,850
This study will investigate whether there is a link between cancer and occupational exposure to lead compounds in Australia.

[The effect of weight loss on the risk of knee osteoarthritis and potential modification by biomechanical factors.](#)

NHMRC Project Grant
Flavia Cicuttini, John Dixon, Anita Wluka, Kim Bennell, Grame Jones, Boyd Strauss, Andrew Forbes. This study will look at the relationship

between obesity and biomechanical factors and how these may interact with obesity and weight loss in modifying the risk of knee OA.

[The effectiveness of short-term treatments for plantar fasciitis.](#)

NSW Podiatrists Registration Board. Radford JA, Landorf, KB, Buchbinder R, Cook C. 2006 \$3,125.

[NHMRC Public Health \(Australia\) Fellowships](#)

Dr Helen Kelsall
Dr Catherine Joyce

[NHMRC Public Health Scholarship](#)

Cameron Willis

[NHMRC Public Health Postgraduate Scholarship](#)

Charmian Bennet

[Improving utility of outcome measurement in trauma patients.](#)

Monash Strategic Grant
Funding
Peter Cameron
\$50,000

[Low back pain and urinary incontinence: What are the risk factors and are these conditions associated?](#)

Monash Strategic Grant
Funding
Donna Urquhart, Susan Davis, Robyn Bell, Flavia Cicuttini. \$35,000

[Advances statistical analyses and associated computing programs for epidemiological longitudinal studies.](#)

Monash Strategic Grant
Funding. James Cui, Andrew Forbes, Malcolm Sim

Financial report

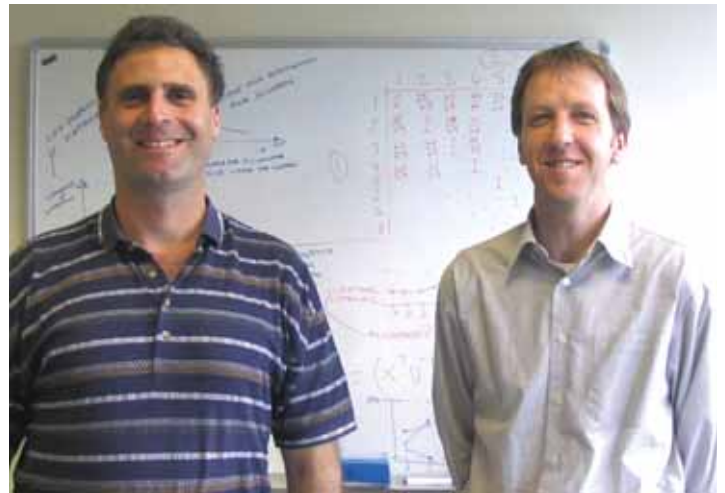
	2003	2004	2005
NHMRC research funding	\$1,788,443	\$1,8265,507	\$4,731,346
Other research funding	\$3,206,862	\$3,233,107	\$2,992,391
Commercial income	\$730,964	\$768,257	\$1,915,709
Short course income	\$131,363	\$279,077	\$124,884
Monash general revenue	\$2,505,093	\$2,848,298	\$2,542,885
Other income	\$887,383	\$331,300	\$788,172
TOTAL	\$9,252,111	\$9,288,550	\$13,095,387



Biostatistical consulting service

Biostatistics is a fundamental requirement for both routine practice and research in public health, health services research and clinical medicine.

Staff of the the Biostatistics Unit provides a Biostatistical Consulting Service available to Monash University research staff, research students, and to external clients. In 2005, over 100 clients utilised this service, with services provided ranging from advice on data collection and forms design to performing complex data analyses using modern methods.



We aim to:

Facilitate access to appropriate and modern statistical methods in health research.

Offer specialist services in the areas of biomedical, clinical and epidemiology data analysis.

Provide training in the application of statistical methods for health researchers.

Available Services

- Statistical Analysis.
- Research Study Design.
- Assistance with the statistical requirements for research grant applications.
- Assistance with the preparation or revision of scientific manuscripts.

We anticipate that the needs and statistical knowledge of clients will vary and are happy to discuss your individual requirements.

Our expertise enables us

to -

- Advise on study design options
- Determine appropriate sample size
- Advise on database design and management
- Advise on data collection strategies
- Determine appropriate analysis techniques to answer key research questions
- Perform data manipulation and relevant statistical analyses as required
- Provide advice to researchers wishing to perform their own analyses
- Use modern methods to analyse complex data structures (e.g: clustered and longitudinal data)
- Provide reports on statistical analyses that include interpretation of results

Biostatistical staff

Associate Professor Andrew Forbes Bsc(Hons), MSc, PhD

Associate Professor Rory Wolfe BSc, PhD

Dr Baki Billah PhD, MAS

Dean McKenzie BA(Hons), FSS

Dr Michael Bailey BSc(Hons), MSc(Stats), PhD

Monash Centre for Occupational and Environmental Health (MonCOEH)

MonCOEH was formerly the Unit of Occupational and Environmental Health and was conferred Centre status in August 2005 in recognition of its active research, teaching and advisory programs in occupational and environmental health. Malcolm Sim has been appointed as Professor/Director of MonCOEH.

MonCOEH has grown rapidly, now employing about 30 research, professional, teaching and administrative staff.

MonCOEH's research interests span aetiological studies in industry groups to identify occupational risk factors for disease, veteran and military health research, occupational disease surveillance, exposure assessment and environmental health hazards and risk assessment.

Funding comes from the NHMRC, other competitive grants, industry and government bodies, and the research program involves collaboration with national and international partners. The Australian Centre for Human Health Risk Assessment, (ACHHRA), headed by Prof Brian Priestly, is closely affiliated with MonCOEH.

MonCOEH coordinates several postgraduate programs in the area of occupational and environmental health, all of which are suitable for part or full time study.

MonCOEH has an active research program, with 10 PhD students in 2005.

The Centre also tailors short courses in occupational and environmental epidemiology for government and professional bodies.

MonCOEH staff were awarded a Victorian Public Health Award for Research Excellence for the Australian Gulf War Veterans' Health Study in 2005. (See page 11)

Current research projects include -

- Advanced statistical analyses for longitudinal studies
- ALL (Acute Lymphoblastic Leukaemia) study
- AusJEM
- Australian Gulf War veterans' health study
- Benzene and leukaemia case-control study
- Farm injury risk in males (FIRM) study - lead by MUARC
- Health Watch cohort study of petroleum workers
- Healthwise study of aluminium workers
- Korean War Veterans' health study
- Cancer in lead workers
- Occupational risk factors for prostate cancer study
- Orchardists cancer and mortality study
- SABRE - Occupational lung disease and surveillance

www.coeh.monash.org/

Staff - back row from left, Dean McKenzie, Martine Dennekamp, Ewan Macfarlane, Helen Kelsall, Malcolm Sim, James Cui, Brian Priestly; front row Geza Benke and Deborah Glass.



Collaborative Research Centres

Australian Centre for Human Health Risk Assessment (ACHHRA)

ACHHRA is a consortium of four Australian Universities with expertise in human health risk assessment. Its establishment was funded by a grant from the Australian Government Department of Health and Ageing through the Innovations Program of the Public Health Education and Research Program (PHERP). Other partners are the Department of Environmental Health, Flinders University, the National Research Centre for Environmental Toxicology (En Tox), and the School of Environmental Studies, Griffith University.

Professor Brian Priestly is Director. Prior to leading ACHHRA, Brian was Director of the Laboratories Branch in the Therapeutic Goods Administration (TGA) and previously, Scientific Director of the chemicals toxicology and chemicals risk management programs of the Commonwealth Health portfolio.

The main focus of ACHHRA is human exposure to hazardous chemicals and microorganisms arising from

environmental or occupational media (air, water, soil, food). Hazardous chemicals and exposures may be of natural origin or result from anthropogenic activities. ACHHRA offers a multidisciplinary approach to health risk assessment, with access to expertise in epidemiology, toxicology, environmental sciences, analytical chemistry, microbiology, communicable diseases, clinical evaluation and biostatistics.



Australian Centre for Radiofrequency Bioeffects Research

The Department is a partner in this Centre which was established in 2004. ACRBR is a consortium consisting of RMIT University, Swinburne University of Technology, Telstra Research Laboratories and DEPM in Melbourne, and in Adelaide - the Institute of Medical and Veterinary Sciences. ACRBR brings together basic sciences, clinical and public health disciplines.

The Centre conducts a broad program of research into possible biological or health effects of exposure to radio waves, particularly from mobile telephones.

Professor Michael Abramson from this Department is one of the Chief Investigators, along with Professor Irena Cosic (RMIT), Dr Rodney Croft (Swinburne), Associate Professor Andrew Wood

(Swinburne), Dr John Finnie (IMVS), Mr Ray McKenzie (Telstra Research Laboratories), Associate Professor Malcolm Sim and Dr Geza Benke from this Department are Associate Investigators.

As part of the Centre, investigators in this Department are conducting a cohort study of teenagers in Year 7 by monitoring these

young people for symptoms, physiological and cognitive factors for an initial period of three years. This age group is ideal since these are generally the years of first uptake of mobile phones.



www.acrbr.org.au

NHMRC Australian and New Zealand Intensive Care Research Centre

The Australian and New Zealand Intensive Care Research Centre (ANZIC-RC) was established in October 2005 after funding from an NHMRC Enabling Grant to establish a national centre for intensive care research. The grant was received in recognition of the track records in clinical research of the founding chief investigators, the outstanding productivity of the ANZICS Clinical Trials Group, and the perceived potential to build a new high quality national resource with potential benefits to Intensive Care clinicians across the country.

The ANZIC-RC was also co-funded by Monash University and is located within the Department of Epidemiology and Preventive Medicine Monash University, at the Alfred Medical Research and Education Precinct (AMREP), in inner Melbourne. The core business of the ANZIC-RC will be the design and conduct of world-class clinical trials (Phase 1, II, III) trials. It will also become a national centre for training intensivists in all aspects of clinical research. Such a centre has never existed in Australia previously.

ANZIC-RC is administered by a Board comprising the four Enabling Grant Chief Investigators (Rinaldo Bellomo, John Myburgh, Simon Finfer, Jamie Cooper), the Head of Monash Department of Epidemiology and Preventive Medicine, the Chair of the Clinical Trials Group (or nominated member where the Chair is a member of the Board in some other capacity) and the President of ANZICS. The current board membership is: Professor Jamie Cooper (Chair), Professor Rinaldo Bellomo, A/Professor Simon Finfer, Chief Investigator A/Professor John Myburgh, Professor John McNeil.

ANZIC-RC will become a:

- Bi-national clinical trials methods centre including high level epidemiology, data management and bio-statistical consultants, experienced intensive care clinical researchers and the infrastructure to support medium and large clinical trials. The centre will also establish comprehensive research programs from surveys to pilot studies and larger trials.

- A national centre for the education and training of intensive care clinicians, allied health personal, Honours students, MD students and PhD students in the design, funding, management and execution of clinical trials.

- Referral centre and source of advice for the Australasian



Intensive Care community to support the design and conduct of clinical research trials.

Additional goals of ANZIC-RC are to initiate and further develop collaborations with other Australian and international research centres, including The George Institute for International

Health (Sydney), and The Canadian Critical Care Trials Group (CCCTG); and support research trials and programs which broaden the scope of existing ICU research activities to related patient cohorts: pre-hospital, emergency, trauma and post ICU care.

www.anzicrc.monash.org/

From left, Professor Rinaldo Bellomo, Professor Robert Atkins, Professor John McNeil, and Professor Jamie Cooper





NHMRC Centre for Research Excellence in Patient Safety

The NHMRC Centre of Research Excellence in Patient Safety was established in 2005 to design, conduct, promote and promulgate high quality multi-centre research to improve quality, safety, efficiency and effectiveness of health care for Australians.

Funding for this national centre was provided by the Australian Council for Safety and Quality in Health Care (now the Australian Commission on Safety and Quality in Health Care) and was awarded through the NMHRC. The consortium includes a team of experts in health care risk management and an advisory group including patient safety specialists from the UK and the US.

The objectives of the Centre are:

- to gain a better identification of factors affecting patient safety in clinical situations;
- a better understanding of the role of human performance factors, organisational factors, and system deficiencies in the generation of clinical errors;
- more effective use of registry data to identify variations in performance and development of research models;
- a better understanding of the role of patients and carers in working with staff to identify and support innovation;
- an understanding of error management in other industrial settings and potential application to health care;

- the use of clinical simulation to provide a realistic and safe environment for research, training, and education in the recognition and management of error-prone situations;
- the development of mechanisms for ensuring the uptake and application of research outcomes; and
- the training of new researchers with an appreciation of the role of multidisciplinary research in studying patient safety.

Professor John McNeil is the Principal Investigator and Professor Peter Cameron is the Interim Director

www.crepatientsafety.org.au/

Other senior staff involved are Associate Professor Peter Sprivulis, Professor Don Campbell, Professor Stephen Duckett, Professor Paul Myles, Professor Penelope Sanderson, Professor Johannes Stoelwinder,

Collaborating Organisations - Monash University, Bayside Health, University of Queensland, Southern Health, CSIRO, ACT Department of Health, ANU, La Trobe University, Austin Health, Medical Defence Association of Victoria, Melbourne Health, Peninsula Health Rehabilitation, Aged & Palliative Care Services Victorian Institute of Forensic Medicine, Wimmera Health Care Group



The Centre regularly publishes the Australian Patient Safety Bulletin.

If you would like to receive the bulletin, please register on the webpage.



NHMRC CCRE in Therapeutics

The CCRE in Therapeutics was established in 2003 and provides a national resource for the evaluation of new and existing drugs. The CCRE works closely with other units in the Department, including Cardiovascular Epidemiology, Clinical Pharmacology and Biostatistics. Professor Henry Krum is Director, and Associate Professor Chris Reid is Associate Director.

2005 was a year of substantial progress and activity within the CCRE in Therapeutics with the major foci of activity in the areas of multi-centre clinical research, registry activities and pharmacoepidemiology.

In the area of clinical trials, an exciting development has been the funding of the large ASPREE study to commence in Australia. This is a study of >20,000 patients testing whether aspirin is beneficial (or otherwise) in elderly patients with regard to cardiovascular disease and cognitive function as well as other outcomes. Following on from major NHMRC funding, there has been substantial cash and in-kind support from Bayer and a formal NIH application has been invited and submitted. Other multi-centre investigator initiated trials performed through CCRE Therapeutics in 2005 include the HAT, CHAT, UNIVERSE and CHABLIS studies. Furthermore, Professor Myles has initiated his major NHMRC sponsored ATACAS study, of tranexamic acid and aspirin under our umbrella.

A rapidly expanding focus of CCRE activity has been that of registries, particularly those to do with drugs and therapeutic procedures, such as PCI. The MIG registry has exploded in activity with over 3,000 patients receiving PCI currently documented. Important and novel data have been extracted from this dataset. Dr Danny Liew has led activities in the area of pharmacoepidemiology, particularly looking at cost-effectiveness and modelling of drug therapies such as statins, aspirin and anti-obesity agents. Dr Kathlyn Ronaldson has joined this group and is investigating causes of clozapine-induced myocarditis.

In concert with the expanded CCRE research activity has been the establishment of a dedicated community based clinical trials facility at our Caulfield site. This facility is ideal as a hub for multi-centre studies and community-based chronic disease trials.

An important component of CCRE Therapeutics' activity has been the training of young clinicians in clinical research methods. Drs Will Kemp and Hendrik Zimmet have been our first Transitional Fellows.

Both have subsequently received competitive scholarship support to continue their studies.

The CCRE in Therapeutics has very rapidly become a favoured training ground for young clinical researchers, as attested to by the large number of inquiries regarding future training opportunities within the institution. We very much look forward to 2006 as a year of consolidation and further



Professor Henry Krum

www.ccretherapeutics.org.au/





CRC for Water Quality
and Treatment

Cooperative Research Centre for Water Quality and Treatment (Public health program)

The Cooperative Research Centre for Water Quality and Treatment is Australia's national drinking water research organisation. The Centre's mission is to assist the Australian water industry to deliver high quality drinking water at an affordable price.

The CRC's research activities include a substantial public health program which has been coordinated by the Infectious Disease Epidemiology Unit in DEPM since the Centre was founded in 1995.

The objective of the CRC research conducted at DEPM is to apply epidemiological techniques to characterise human health risks from microbial and chemical contaminants in drinking water and alternative water sources. Techniques employed in this research include specific investigations measuring health outcomes in human participants, the development of methods to provide improved estimates of individual exposure levels, and the use of risk assessment for evaluation of perceived health risks.

A significant consideration in this work is placing water-associated risks in context with the broader public health perspective in order to ensure cost-effective use of public resources in risk management. DEPM staff also contribute expertise to a range of committees and advisory bodies relating to the regulation of water supplies.

In response to recent water shortages, governments across Australia are moving to increase utilisation of alternative water sources such as rainwater, stormwater and recycled water from treated sewage as a substitute for conventional tap water supplies for non-potable uses in the domestic context. These changes require careful management to ensure that public health is not compromised by exposure to microbial and chemical contaminants in such water sources. Recently developed projects focus on

improving the data and assumptions currently used in health risk assessment for waterborne contaminants to address information gaps and reduce uncertainty. Outcomes from this research will feed into regulatory processes and permit health authorities to make better informed decisions about requirements for water quality and management options for domestic use of alternative water sources.

Health Stream

DEPM staff also write and publish Health Stream, the public health newsletter of the CRC for Water Quality and Treatment.

Current and past issues are available at:
www.waterquality.crc.org.au/hscurrent.htm

Below, from left, Karin Leder, Peter Donlon (Water Services Assoc. of Australia), Don Bursill (CEO of the CRC), Martha Sinclair and John McNeil at a meeting to discuss a project on the health effects of drinking rainwater.

www.waterquality.crc.org.au/



Clinical data registries

Over the past few years there has been an enormous upsurge in interest around the establishment of clinical registries. DEPM has taken a leadership role in developing a critical mass of expertise around the establishment, management and analysis of clinical registries. This interest has been driven by a number of factors including the need to ensure quality assurance in relation to treatments and benchmarking through to assessing the benefits of novel therapeutic agents released on the Australian market.

The following registries are managed by or associated with DEPM.

- ASCTS Database Project
- Australian Rheumatology Association Database (ARAD) Project
- Bosentan Patient Registry
- Haemostasis Registry
- Melbourne Interventional Group (MIG) Interventional Cardiology Registry
- Melbourne Vascular Surgeons Association (MVSA) Registry Project
- REACH Registry
- Surveillance of Australian workplace Based Respiratory Events (SABRE)
- Victorian Cardiac Arrest Registry
- Victorian Orthopaedic Trauma Registry
- VSTORM - Monitoring and Evaluation of the Victorian State Trauma System



Bosentan Patient Registry

This is a unique registry established as part of a risk sharing arrangement with the Pharmaceutical Benefits Advisory Committee and the Pharmaceutical industry for the listing of medication (bosentan) on the Pharmaceutical Benefits Scheme. Outcome data from randomised trials in patients with pulmonary arterial hypertension is not available and the establishment of a registry to monitor survival outcomes in patients receiving PBS subsidised medication will enable the PBAC to evaluate current drug pricing models.

Australian Rheumatology Association Database (ARAD) Project

The ARAD database is an initiative of the Rheumatology Society and the CCRE in Therapeutics provides the data management for the activity. This is a Teleform based project with baseline and follow-up data for patients receiving new biological agents for the management of rheumatoid arthritis. Rachele Buchbinder is a key collaborator on this project which incorporates hospital and private specialists across Australia.

Melbourne Interventional Group (MIG) Interventional Cardiology Registry

The MIG registry is a collaboration of interventional cardiologists (led by Andrew

Ajani) working to establish a registry for interventional cardiology procedures. Eight public and private hospitals are involved and over 500 cases have been collected within the first year of operation. Once established, the registry aims to provide a platform for a national database for cardiac procedures in Australia

REACH Registry

This study is an international prospective observational registry of subjects at increased risk of atherothrombotic events, coordinated in Australia by the CCRE in Therapeutics together with the Baker Institute. The objectives of the study are to evaluate the long-term risk (yearly event rate) of atherothrombotic events

globally, as well as in different population subgroups, compare outcomes within different subject profiles and define predictors of risk for subsequent events. The study will also enhance the quality of primary and secondary cardiovascular prevention among Australian general practitioners.

ASCTS Database Project

The Victorian Division of the Australian Society of Cardiothoracic Surgeons appointed the Baker Institute to act as the Data Management and Analysis centre to identify key performance indicators for cardiac surgical outcomes. The CCRE in Therapeutics undertakes the biostatistical analysis for this project. surgery in Victoria.

Melbourne Vascular Surgeons Association (MVSA) registry project

In 2004, the Melbourne Vascular Surgeons' group appointed the Baker Institute as its data management centre and for conducting clinical audit activities for all 13 surgical units based in Victorian public hospitals. The CCRE in Therapeutics undertakes the biostatistical analysis for this project.

Haemostasis Registry

The Haemostasis Registry was established to collect data on the use of recombinant activated factor VII (rFVIIa), which is marketed as NovoSeven®.

rFVIIa is approved for the treatment of spontaneous and surgical bleeding in patients with haemophilia A or B with antibodies to either factor VIII or factor IX. It enhances clotting at the site of bleeding through the formation of a firm fibrin clot, without systemic activation of the coagulation cascade.

Recently rFVIIa has been used in the treatment of non-haemophiliac patients with life-threatening bleeding, such as after trauma, cardiac surgery, liver transplantation or intracerebral haemorrhage. Patients with uncontrolled bleeding have significant mortality rates and transfusion of blood is known to be correlated with increased morbidity and mortality as well as an increased cost to the health care system.

The main concern associated with the use of rFVIIa is the potential for an increased risk of systemic thrombosis. Because of the relatively small numbers of patients and the wide variety of indications, it is unlikely that clinical trials will be conducted in many of these areas. Registry data is, therefore, vitally important in increasing knowledge about safety and efficacy of this high cost drug.

The Registry is collecting data from patients treated with rFVIIa throughout Australia and New Zealand. To date twelve hospitals have received ethics committee approval and are contributing data. A further 25 hospitals are awaiting ethics committee approval. It is estimated that in excess of 300 cases will have been received by the Registry before the end of 2005, which will make it the largest collection of data in the world on the use of rFVIIa in non-haemophiliac patients. The Project Manager is Dr Louise Phillips, and the Chief Investigator is Professor Peter Cameron.

SABRE

Surveillance of Australian Workplace Based Respiratory Events.

Funded by the Australian Lung Foundation, SABRE is a surveillance scheme providing the first comprehensive data on occupational respiratory disease in Victoria and Tasmania and has links to a similar scheme in New Zealand. We have also been involved in setting up a similar scheme in NSW. Registers exist in several overseas countries, for example, the Surveillance of Work-related Occupational Respiratory Disease program (SWORD) in the UK which has been reporting data since 1989. Respiratory and occupational physicians regularly report to SABRE whether or not they have seen cases of occupational respiratory disease and almost 644 cases of occupational respiratory disease have been reported.

Monitoring and evaluation of the Victorian State Trauma System (VSTORM)

The Victorian State Trauma Registry is a collaboration between Monash University, the University of Melbourne, the Royal Melbourne Hospital, the Alfred Hospital and the Victorian Department of Human Services and was established in 2001 with funding from the Victorian Department of Human Services.

VSTORM was established to collect standardised trauma data from each hospital in Victoria to monitor the performance of the State's trauma system and to reduce preventable death and permanent disability resulting from major trauma. Further funding has been received for the continuation of VSTORM up to 2008.

The Victorian Orthopaedic Trauma Registry

A collaboration between the Alfred Hospital Department of Orthopaedics, the Royal Melbourne Hospital Department of Orthopaedics, and the Department of Epidemiology & Preventive Medicine, Monash University. The Orthopaedic Trauma Registry is a comprehensive registry and database of orthopaedic injuries, treatment, complications and outcomes based on admissions to both Adult Level 1 Trauma Centres. Outcomes will be recorded using specific injury evaluation tools, and quality of life measurements that are available and have been validated in the orthopaedic literature. The data will be used to perform regular review of outcomes of all categories of injuries recorded. Treatment options will be compared within the trauma registry patient group. Results will be benchmarked against other published results and predictors of outcomes will be modeled. Complications will be examined to seek alternative low morbidity options. Funded by the Victorian Trauma Foundation

International links



Above, Sri Lankan visitors put on a traditional lunch for department staff. From left Nimalka Hetti, Sriyakantha Beneragama, Gamini Jayakody, Chandrani Jayasekara and Nazria Shahim.

We are fortunate to be a popular destination for Sri Lankan public health practitioners who are required to do a year of overseas training.

In 2005, Dr Gamini Jayakody, Dr Nazria Shahim and Dr Nimalka Hetti were visiting academics from Sri Lanka. Gamini is a consultant physician with the Sri Lankan Provincial Ministry for Health and is involved in the planning, implementation and evaluation of programme interventions in the Central Province. Nazria has an MD in Community Dentistry from the University of Colombo and her research interests are the improvement of maternal and child oral health. Nimalka is a member of the Epidemiology Unit of the Ministry of Health in Sri Lanka and is involved in community health activities in delivering primary health care,

especially through maternal and child health clinics and schools.

Dr Sriyakantha Beneragama is an epidemiologist with the National STD/AIDS Control Program in Sri Lanka, and visited the Department in 2003/04. Sriyakantha returned in 2005 to study the Master of International Research Bioethics.

Iris de Ridder was a fourth year medical student from the University of Amsterdam who spent time here to gain research experience. While at DEPM, Iris worked on a project evaluating the vasoactive Rhokinase inhibitor, fasudil, on skin microvessel tone in patients with heart failure and hypertension.

Dr Masoud Karimloo arrived at DEPM in 2004 and returned home in 2005. Masoud was completing a PhD in biostatistics at the Tehran University of Medical Sciences and worked here with Associate Professor Andrew Forbes and Dr Rory Wolfe on the application of a statistical analyses method when data is missing on one exposure variable.

Below, Masoud (2nd from right) at his farewell lunch with from left, Michael Abramson, Rory Wolfe and Andrew Forbes.



International links

Dr Arintaya Phrommintikul (below) was a visitor from Thailand to work with the CCRE in Therapeutics with Professor Henry Krum.



WHO Visiting Fellows from Vietnam

In 2005 several WHO Visiting Fellows from Vietnam were based in the department for several weeks. As part of their visit, a workshop was organised last Friday to focus on their area of interest - community prevention of CVD.

The workshop was a great opportunity to exchange views on CVD prevention and management and will hopefully be a regular item on the calendar.

Pekin Union Medical College visitors

In May we welcomed visitors from the Pekin Union Medical College. In 2005 Monash signed an agreement with the Chinese Academy of Medical Sciences at Pekin Union Medical College to offer the Monash MBA (Health Services Management) in Beijing. This Department will be contributing to the Health Services Management specialisation in



the program. Pictured below are Professor Huang Jianshi, Professor Guan Yuanzhi, Madam Ma Jingyun, Professor Xu Zenglu, Associate Professor Chao Ni and Professor Zhang, with Malcolm Sim and Michael Abramson





Narges Khanjani is a doctoral student from Iran. Narges came to this Department to study organochlorines and breast cancer with the Monash Centre for Occupational and Environmental Health.



In June we were very pleased to have a visit from Dr John Powles who left the Department thirteen years ago to work at Cambridge University. John's main areas of interest are the nature and causes of major health transitions; major issues in public health policy and new methods for public health overviews.

Michael Abramson visited University of Kuwait

Michael visited the Department of Community Medicine at the University of Kuwait as an external examiner. The university has a 7 year undergraduate medical course with Community Medicine taught in a 6 week rotation during the 6th year. A highlight was a project in which groups of students framed a research question, piloted questionnaires, collected and analysed data and prepared a report. The best projects were clearly of a publishable standard.

Just Stoelwinder, Head of our Health Services Research Unit, visited the School of Public Health at the Shanghai Second Medical University in 2005. Monash University, through the Faculty of Business & Economics, will be offering a MBA - Hospital Management in partnership with the Shanghai Second Medical University. The School of Health Management in Shanghai will be teaching 4 health management topics and 2 MBA topics in the first half of the course. The students will then come to Melbourne for the remaining MBA core Units and 2 health management units here at DEPM. Expected enrollment will be from 30-50 students. It is expected that the program will commence next year, subsequent to Ministry approval. Professor Ma is establishing a program that will enable teaching staff from Shanghai to spend up to 3 months with us at DEPM over the next few years.

The social side of DEPM 2005

Some of our staff and students in Fawkner Park 2005



Visiting academics and international students on a bus trip to the Dandenongs.



Vanessa, Emily and Sam at the DEPM tsunami fundraising night early in 2005.



Staff taking part in the Monash 10,000 steps walk



Staff at a rounders match held in Fawkner Park in 2005

Staff morning tea, held each fortnight.



John McNeil with honours students at morning tea.

Bebe Loff and Deborah Zion with students at a lunch to celebrate Bebe's PhD completion.



Teaching



Undergraduate

The Department has been heavily involved in successfully completing the roll out of the new five year medical course. We share overall responsibility for Theme II: Population, society, health and illness, which comprises 15% of the new curriculum with staff from the Monash Institute of Health Services Research. We teach population health in first year, health promotion in second year, evidence-based clinical practice, occupational and environmental health in third year and health services management in fourth year. We also teach biomedical sciences: society and health policy; and management in the Bachelor of Biomedical Sciences degree, and assist international students from Malaysia.

Honours program

The BMedSc(Hons) program is interesting and varied. Students with sufficient grades from the BMedSc course participate in classes in epidemiology and biostatistics, the cornerstones of medical research. They also complete research supervised by researchers within the department and become proficient in presenting their results at departmental seminars.

We welcome enquiries from students considering honours. Enquiries to Dr Elizabeth Douglas on 9903 0168 or email elizabeth.douglas@med.monash.edu.au.

Honours students 2005, from left - Reannan Cashen, Penny Robinson, Conrad Truscott, Judy Gold, Ella Zomer, Darshini Devadason, Alison Pedrana, Ferencz Baranyay.

In 2005 our honours projects included -

- Cost effectiveness of health services for cardiovascular disease (CVD) and heart failure (HF).
- Primary prevention model of CVD
- Chronic disease and ageing
- Overweight and obesity in Australia
- Clinical and basic studies of new drug therapies for HF.
- Effect of drugs on autonomic and endothelial parameters in HF.
- Environmental arsenic exposure health effects.
- Gulf War veterans' health.
- Cost-effectiveness and development of discharge performance indicators.
- Occupational exposures and workers' health.
- Diet, pollution and chronic lung disease.
- Lifestyle factors and MRI evaluation of osteoarthritis.
- Preventing disability from back pain.
- Trauma epidemiology
- Emergency medicine

Postgraduate

Biostatistics
Clinical Epidemiology
Health Risk Sciences
Health Services Management
International Health
International Research Bioethics
Occupational & Environmental Health
Public Health

Our Postgraduate Courses attract students from a wide range of medical and allied health backgrounds - including medical, nursing, physiotherapy, pharmacy and health management.

We are dedicated to preparing our students to serve the community in an increasingly competitive job market, and our graduates are highly sought after by employers worldwide.

Many of our courses are off-campus with block teaching and most of our onsite teaching is carried out in the AMREP Education Precinct or in the Department's seminar room, both at the Alfred Hospital. This gives students access to modern classrooms and seminar rooms and the Ian Potter Library. It is also close to public transport and a short tram ride from the city.

We would like to acknowledge staff of the Centre for International Health, Burnet Institute, for their substantial contribution to our teaching programmes.

We offer students -

- self-paced study
- single unit options
- a variety of course options for maximum career benefit
- enthusiastic teaching staff who inspire students
- a research rich environment at the Alfred in collaboration with the Burnet Institute, the Baker Heart Research Institute, Clinical Trials Victoria, the National Trauma Centre and others sharing the new AMREP facilities.

In 2005 we had 295 postgraduate students enrolled, 157 of these were studying the Master of Public Health. 117 students completed their courses in 2005, and 26 students graduated mid year, 18 local and 8 international students.

This included our first intake of Botswana students who completed their Masters program and graduated at a ceremony at the Monash Johannesburg campus.



Lisa Shaw-Stewart

New courses 2006

Two new courses were approved to begin in 2006, the Graduate Certificate in International Research Bioethics and the Master of International Health.

Five students came to the Department to study the Master in International Research Bioethics - Shyamala Nataraj from India, Chandrani Jayasekara from Sri Lanka, Sriyakanthi Beneragama from Sri Lanka, Virginia Balanon from the Philippines and Yin Thet Nu Oo from Burma. The course was established with funding from the National Institutes of Health, US and is interdisciplinary, with

emphasis given to ethical issues associated with research in developing countries in the Asia-Pacific region.

In 2005, our first Master of International Research Bioethics students graduated: Dr Jameela George, Dr Jagruti Waghela, Dr Arshi Farooqui, Dr Shaukat Taher Esufali, Edlyn Jiminez-Santos

Arshi, Edlyn and Jagruti have now formed the steering committee for the newly formed Asia Pacific Bioethics Network.

Doctoral program

In 2005 our doctoral enrolments continued to increase and many of our students were awarded scholarships or graduated. By the end of 2005, we had 44 students enrolled, from many backgrounds including pharmacy, physiotherapy, medicine, radiography, science, psychology, nursing.

The progress of students in the Department is facilitated by a very strong research environment, with an extensive program of NHMRC funded research, access to extensive infrastructure support including assistance in biostatistics, data management, computing and support from experienced staff and a large student body. We also have a Good Research Governance Officer who works with each doctoral student on the development of protocols and the following of strict research guidelines.

A list of our current doctoral students is on page 50.

If you would like to enquire about our doctoral program, please contact our program coordinators -
Dr Rory Wolfe
rory.wolfe@med.monash.edu.au
or
Dr Bebe Loff
bebe.loff@med.monash.edu.au



Awards / Scholarships

Helen Kelsall, who completed her PhD in 2004 looking at the health of Australian Gulf War veterans, was awarded a NHMRC Postdoctoral Fellowship.

Charmian Bennet was awarded a NHMRC Public Health Postgraduate Scholarship to investigate the effect of airborne particles on chronic respiratory disease and the role of public health interventions.

Catherine Joyce completed her PhD in 2004 and was awarded an NHMRC Fellowship to investigate the current roles of general practitioners and practice nurses in the provision of primary health care services.

Fahad Hanna was awarded an NHMRC Scholarship

Andrea Fradkin was awarded a postdoctoral fellowship at the University of Pittsburgh. Andrea's thesis looked at golf injury prevention and improvement of golf swing. In the US she is running the Golf Fitness Laboratory at the Pinehurst Resort, and helping to rehabilitate injured members of the US special forces and the NFL team, the Pittsburgh Steelers.

Andrea Fradkin



Imo Inyang was one of several new doctoral students beginning in 2005. Imo is a radiographer who has worked in Nigeria, Kuwait, and here in Australia. Imo is looking into exposure assessment in an epidemiological cohort as part of the mobile phone users surveillance study.

Imo Inyang



PhD Students completing 2005

Alex Padiglione - The epidemiology of vancomycin resistant bacteria.

Rochelle Eime - The benefits of protective eyewear in squash.

Melanie Matheson - Genetic and environmental risk factors for chronic obstructive pulmonary disease.

Robyn Tapp - Epidemiology of diabetic complications.

Bebe Loff - the first law graduate to complete a PhD in this Faculty. Bebe's thesis was a collection of case studies examining the potential contribution of a human rights framework to the analysis of health issues. Bebe is now Head of the Human Rights and Bioethics Unit in this Department and also coordinates the Graduate Certificate and Master of International Research Bioethics.

Guy Haller, doctoral student from Switzerland

"Following specialty training in Anaesthesia in Switzerland, I received in 2002 a scholarship of the Swiss National Science Foundation (SNF) to do a PhD on quality and safety. I was free to go wherever I wanted, but I had to gain through this project the necessary skills to be able to develop this field at my return to my home country. It took a significant amount of time to find a place which could offer both excellence in research and a formal methodological training while being at the same time associated to a hospital setting which was mine, anaesthesia. Following a number of visits to several different Universities and Hospitals in different countries, I decided to do my PhD in the Department of Epidemiology-Preventive Medicine and the Department of Anaesthesia Alfred hospital-Monash University.



I never had to regret my choice and the 3 years spent to do this PhD have been some of the best of my life. Not only was I able to follow a formal methodological training in research and health services management but also to participate to the clinical activities of the Department of Anaesthesia, while doing my research project. This opportunity I had, to gain a broad training in all the different dimensions of my field of interest was absolutely unique. I greatly enjoyed this flexibility I was offered and which was so important to gain the necessary skills in a multidisciplinary and multidimensional domain such as patient safety.

This could not have been done without the fantastic support offered by my supervisors. I also greatly enjoyed the opportunity offered in the department of Epidemiology to participate to teaching activities and liked the lively debates some tutorials could create. Although publishing in the Lancet, the BMJ and Anesthesiology was a great outcome of these 3 years, the one I will always remember is the friendliness and wonderful welcome I was offered in Australia and particularly in the Departments of Epidemiology and Preventive Medicine, and Department of Anaesthesia.

I have now many friends in Australia and I even started to learn surfing. There aren't however a lot of waves on Swiss lakes, so I have to go back to Australia?...a good excuse to come back to a place I greatly enjoyed and where I learned so much."

Bebe Loff



Alex Padiglione



Ansari, Zahid

Proposal to develop a system to monitor aspects of the quality and performance of the Victorian healthcare system using routine data sources.

Bennett, Charmian

The impact of environmental exposures to particulate air pollution on respiratory health and the role of public health interventions.

Blackman, Jill

War exposure and its health outcomes in service personnel.

Buchanan, Frank

The influence of gender on recovery from general anaesthesia.

Buchbinder, Rachelle

Short and long-term effects of a public health media campaign designed to reduce disability associated with back pain.

Chellappah, Jessica

Surveillance and modification cardiovascular risk factors in children and young adults.

Coghlan, Jennifer

The efficacy and safety of different peri-operative modalities of pain control in subacromial decompression and/or rotator cuff repair surgery for rotator cuff disease.

Cuddihy, Helen

Assessing the validity of new approaches to measure clinical competence in junior medical staff.

Doolan, Glenn

Occupational exposure using self reports and a job exposure matrix in relation to prostate cancer from an Australian case-control study.

Dowrick, Adam

Development of an orthopaedic trauma registry to evaluate and monitor treatment effectiveness.

Duncan, Gregory

A clinical and economic evaluation of the use of pentoxifylline as adjunct therapy in chronic wound healing and prevention of wound recurrence: a randomised placebo-controlled trial.

Fish, David

The contribution of worksite assessment to return to work rates.

Fradkin, Andrea

Sports injury epidemiology.

Glisson, Michael

Quantifying the influence of osteo-arthritis by measuring changes in cartilage in the hip and knee.

Guy, Rebecca

Linked voluntary sentinel surveillance for HIV in Victoria.

Haas, Steven

The epidemiology of chronic heart failure.

Haller, Guy

Safety and quality of the peri-operative process; a new tool of assessment.

Hanna, Fahad

Magnetic resonance imaging of osteoarthritis.

Harriss, Linton

Dietary risks and alcohol as determinants of cardiovascular disease in the Melbourne Collaborative Cohort Study.

Haydon, Andrew

Long term outcomes and risk factors for cancer in Victoria.

Gregory, Peter

Ethnic Vietnamese drug users and blood borne viruses: A study of social contexts, culture and risk.

Inyang, Imo

Assessment of exposure to radiofrequency energy in an epidemiological cohort

Karipidis, Ken

Electromagnetic fields and the possibility of adverse health effects.

Kelsall, Helen

Respiratory and neurological health, symptoms, medical conditions and chronic fatigue syndrome in Australian Gulf War veterans.

Kemp, Will

The impact of norfloxacin on portal pressures and endotoxaemia in clinically significant portal hypertension and the role of urotension II.

Khanjani, Narges

Organochlorines and breast cancer.

Liew, Danny

Epidemiological modelling of ischaemic heart disease in Australia.

Lim, Megan

Novel ways of assessing and reducing the sexual risk behaviour of young men and women.

Loff, Beatrice

Health and human rights.

Macfarlane, Ewan

Occupational exposures and health outcomes in the Australian primary aluminium industry.

Matheson, Melanie

Genetic and environmental risk factors for chronic obstructive pulmonary disease.

McKenzie, Dean

The development, comparison and application of brief psychological diagnostic and screening tests by statistical and machine learning methods.

O'Toole, Joanne

Water re use and alternative water sources: attitudes, practices, risk assessment and human health outcomes.

Padiglione, Alexander

Epidemiology of Vancomycin resistant bacteria.

Racunica, Tina

Effect of weight loss on knee joint cartilage, bone size & density, changing body composition & muscle strength in a population of obese subjects free of osteoarthritis.

Rizak, Samantha

Developing evidence-based, strategic water quality monitoring systems.

Stebbing, Margaret

Generational transmission of ideas of risk.

Stuckey, Rwth

Evaluation of occupational health & safety models for corporate fleet safety.

Tapp, Robyn

Epidemiology of diabetic complications in Australia.

Thom, Ogilvie

Preventive aspects of non invasive haemodynamic monitoring in severely ill patients in the Emergency Department.

Thomson, Nicholas

Public health implications of amphetamine use epidemic in Northern Thailand.

Walsh, Nicholas

Psychosocial, environmental and pharmacotherapy determinants of antiviral treatment in injecting drug users.

Zazryn, Tsharni

A prospective study of cumulative brain injury in boxers.

Zimmet, Hendrik

Experimental strategies combining mesenchymal stem cells with angioblasts and analyses of such strategies in the treatment of congestive heart failure.

Research Units

Aviation Medicine Unit

Head of Unit
Dr David Newman, MBBS,
DipAvMed, PhD

David Newman spent over 12 years in the RAAF as a medical officer and aviation medicine specialist. He completed aviation medicine courses in the US and UK, including the Diploma of Aviation Medicine through the Royal College of Physicians, London.

David completed his PhD in physiology and is a member of the Aerospace Medical Association. He is an active pilot and has flown 150 hours in high performance aircraft such as the F/A-18 and Harrier. David is coordinating the Australian Certificate of Aviation Medicine course which is run by this Department.

David Newman was awarded a Helicopter Association of Australia 2005 Safety Award for alerting the industry to the strengths and weaknesses of the new night vision devices now available to the civilian helicopter community from international sources.

Australian Certificate of Civil Aviation Medicine

This two week course is held twice a year in conjunction with the Civil Aviation Safety Authority (CASA) and is designed to introduce medical practitioners to the medical aspects of civil aviation in Australia and to satisfy the Australian Civil Aviation Safety Authority's requirements for basic training of Designated Aviation Medical Examiners (DAME).

Course topics include -

- The flight environment
- Altitude
- Pressure cabins
- Oxygen equipment
- Thermal stress
- Spatial disorientation
- Human factors in aviation
- Air traffic services
- Clinical Aviation Medicine

- Passenger fitness to fly
- Civil Aviation Medical Certification
- Aviation accident investigation

The Unit also holds other courses, eg Passenger Fitness to Fly.

Our Aviation Medicine and Infectious Disease Epidemiology Units combined to reassure travellers that plane passengers are no more likely to get sick than bus or train travellers. Karin Leder and David Newman said fears about infections being spread by recirculated air in plane cabins are unfounded. 'There is a common misconception among the travelling public that if one person on board an aircraft has an infection, then all other passengers are at risk' they wrote in the Internal Medicine Journal.

Air inside an aircraft comes from two sources - half from outside the plane and half recirculated within the cabin. 'Recirculated air goes through a filter and is redistributed to the section from which it came so any disease particles are kept localised' Dr Leder said.

Int Med J, 2005;35:50-55.



Research Units

Biostatistics Unit

Head of Unit

Associate Professor Andrew Forbes

BSc(Hons), MSc, PhD

Biostatistical methodological research

Staff of the Biostatistics Unit are involved in a number of methodological research activities including: assessment of methodology for meta analysis of short interrupted time series; mechanisms for handling missing data in longitudinal and prognostic models; methodology for inter-rater reliability studies with multi-factorial designs; models and estimation for repeated ordinal responses; statistical process control methods for monitoring of health systems; issues concerning baseline adjustment in randomised trials; development and application of classification tree methods for identification of subgroups or screening instruments.

Departmental Statistical Support

The Biostatistics Unit has significant input into design, data collection and analysis for the vast majority of research projects conducted in the Department. Members of the Unit hold chief investigator and/or associate investigator status on a numerous research projects within and external to the Department.

Biostatistical Consulting Service

Staff of the Biostatistics Unit provide a Biostatistical Consulting Service available to Monash University research staff, research students and external clients. (See page

Teaching

The teaching activities of the Unit consist of lectures and tutorials within and external to the Department, both by traditional face to face teaching as well as distance education learning. The Unit

coordinates subjects in the Masters of Biostatistics program, and conducts statistics teaching in the undergraduate Medicine and Biomedical Science courses, as well as postgraduate teaching for the Master of Public Health and the Graduate Diplomas in Clinical Epidemiology, Occupational and Environmental Health, Clinical Health Management, International Health. Other activities include a series of short courses on basic statistics and the Stata statistical software package.

Staff

A/Prof Andrew Forbes
Dr Rory Wolfe
Mr Dean McKenzie
Dr Michael Bailey
Dr Baki Billah
Ms Pam Simpson
Dr James Cui
Dr Mahbuba Yeasmin

Mahbuba Yeasmin



James Cui



Research Units

Cardiovascular Research Unit

Head of Unit

Professor Andrew Tonkin
MBBS, MD, MRACP, FRACP

Staff & students

Dr Anna Peeters
Ms Joanne Croucher
Mr David O'Reilly
Ms Alison Beauchamp
Mrs Karen Duve
Mr Linton Harriss (Doctoral students)
Ms Jessica Chellapah (Doctoral student)
Ms Lei Chen (Doctoral Student)
Ms Julie Yallop

Home Automated External Defibrillator Trial (HAT study)

HAT is funded by the NIH and is being conducted in the US, Canada, Australia, UK and New Zealand. In Australia the study involves 34 hospitals. Professor Andrew Tonkin is Principal Investigator, Julie Yallop the Australian and New Zealand Study Coordinator, and a member of the Steering Committee for the study.

ASPREE

ASPREE is a large-scale double-blind controlled trial to determine the effect of low-dose aspirin versus placebo over a 5 year treatment period, for the prevention of cardiovascular events (fatal and non fatal) in subjects aged >70 years without known cardiovascular disease. Additional aims are to investigate aspirin effects on all cause mortality, dementia, hemorrhagic stroke, preservation of cognitive function, gastrointestinal bleeds, and other clinical significant bleeding, carcinoma, thromboembolism, institutionalization, disability, cost-effectiveness, depression and quality of life.

Epidemiology of Chronic Diseases and DNA studies

Andrew Tonkin is Co-Principle Investigator of The Melbourne Collaborative Cohort Study established in the 1990s by the Anti-Cancer Council of Australia to investigate the role of diet and other lifestyle factors in cancer and diabetes. 41,500 people were recruited into the study and the cohort has been followed

up 3-4 years after baseline. In 2002, a NHMRC Program Grant was awarded to re-survey the surviving participants and expand the capture of outcomes to include cardiovascular disease and the metabolic syndrome. The data collected will aid the study of the determinants of heart disease with the aim of developing prediction tools.

CHAT

A randomised trial of telephone support for chronic heart failure patients at high risk of rehospitalisation funded by the NHMRC and the Medical Benefits Fund. Chronic heart failure is a major public health problem in Australia. This project is implementing the first Australia-wide randomised clinical trial of telephone support for CHF patients provided by trained nurses to enable patients and their families to maintain their health in as stable a manner as possible, in their homes. This strategy has significant implications for providing equity of access for rural and remote Australians.

Julie Yallop



David O'Reilly



Research Units

Clinical Epidemiology Unit

Alfred campus

Head of Unit
Professor Michael
Abramson
MB BS, BMedSc(Hons),
PhD, FRACP, FAFPHM

Clinical epidemiology is the application of epidemiological methods to the care of patients. It includes critical appraisal, evidence based medicine and the development of clinical guidelines. The activities of this unit include undergraduate and postgraduate teaching; short course; advisory work; clinical services and contributions to The Cochrane Collaboration.

The Respiratory Epidemiology Group is collaborating with the Alfred and CSIRO Marine and Atmospheric Research on an NHMRC funded study of the health effects of particulate air pollution. Daily ambient PM_{2.5} aerosol is being collected with a Partisol sampler. During 2004, laboratory visits were completed by young adults originally recruited for a study of micronutrients and asthma. We are also collaborating with the Universities of Melbourne

and Tasmania on the 36 year followup of the Tasmanian Asthma Survey. This is a unique study of over 8,500 children born in Tasmania in 1961 who were first recruited in 1968 and last seen in 1992-93.

A report on occupational asthma was completed for the Department of Human Services in collaboration with the Occupational and Environmental Health Unit. The Mobile Radiofrequency Phone Exposed Users Study (MoRPhEUS) commenced fieldwork in secondary schools to examine the effects of mobile phones on cognitive function, blood pressure and hearing in Year 7 students. Another NHMRC grant was received to undertake a randomised controlled trial of spirometry for the management of chronic respiratory diseases in general practice (SPIRO-GP).

Staff & students

Melanie Matheson,
Postdoctoral student
(transferred to the University of Melbourne in 2005)
Geza Benke (OEHUnit)
Joan Raven (Alfred Hospital)
Rosie Gehrig-Mills (Research Nurse)
Billy Skoric (Alfred Hospital)
Christina Dimitriadis (RA jointly with OEH Unit)
Doctoral students
Charmian Bennet
Imo Inyang
Tom Jeavons
Margaret Stebbing



The Board of the Australian Centre for Radiofrequency Bioeffects Research - at rear - A/Prof Andrew Wood and A/Prof Rodney Croft (Swinburne). Front (from left): Prof Irena Cosic, Ray McKenzie, Dr Tim Kuchel and Prof Michael Abramson.

Research Units

Clinical Epidemiology Unit

Cabrini campus

Head of Unit
Rachelle Buchbinder
MBBS(Hons), MSc, FRACP

The research program includes the management of soft tissue disorders - particularly the shoulder, elbow, knee and heel and randomised controlled trials of innovative new therapies in each of these areas, including vertebroplasty for the treatment of osteoporotic spinal fractures, physiotherapy after hydrodilataion for adhesive capsulitis and shock wave therapy for the treatment of tennis elbow and heel pain. Rachelle Buchbinder also has interests in the risk of malignancy in rheumatic diseases, prevention of disability from low back pain through public health mass media campaigns. Other current research concerns improving communication between health professionals and patients including a linguistic framework for -improving the quality of written communication and understanding the role and impact of health literacy on

health outcomes. This work has been supported by various local, national and international bodies.

Staff & students

Melissa Barber
Renea Johnston
Peter Kent
Margaret Staples
Lainie Wengier
Fiona Pettigrew

Current Doctoral students

Jennifer Coghlan
Lucy Busija (joint with Uni Melb)
Sabina Ciciriello (join with Uni Melb)
Joel Radford (joint with Uni West Sydney)
Simon French

Current research includes -

Australian Rheumatology Association Database (ARAD). A longitudinal study of the long term effects of rheumatoid arthritis and its treatments in Australia.

A 4-year NH&MRC-funded randomised double-blind placebo-controlled trial investigating the efficacy and safety of vertebroplasty for acute painful osteoporotic spinal compression fractures.

A 3-year NH&MRC-funded randomised double-blind placebo-controlled trial investigating the efficacy of physiotherapy after hydrodilataion for the stiff painful shoulder.

Functional health literacy of rheumatoid arthritis patients attending a community based private rheumatology practice.

The efficacy of extra-corporeal shock wave therapy (ESWT) in the treatment of lateral epicondylitis (tennis elbow): a randomised double-blind placebo-controlled trial.

Cochrane reviews of interventions for shoulder pain and tennis elbow.

Development of a linguistic framework to assess the quality of written patient information.

Cross-sectional survey of the Victoria population to assess functional health literacy levels in the community.

Quality of Life, disability and prioritisation of people waiting for joint replacement surgery.

Has there been a sustained change in doctors' beliefs about back pain four years after cessation of a population-based intervention?



Staff from left, Lainie Wengier, Melissa Barber, Margaret Staples, Renea Johnston, and Fiona Pettigrew

Research Units

Clinical Pharmacology Unit

Head of Unit
Professor Henry Krum
MBBS, PhD, FRACP

The Unit provides drug-related services to The Alfred, including advice to and membership of the Drug and Therapeutics Advisory Committee and the Human Research Ethics Committee, leadership on the Adverse Drug Reactions Committee and consulting on drug and toxicology related clinical problems.

The Unit has an active program of basic and clinical research with regard to evaluation of new and established drug therapies.

Clinical Research is focused on drugs that may affect the cardiovascular system. Agents under current active research evaluation include COX-2 inhibitors, angiotensin receptor blockers, statin therapies and beta-blockers, as well as various experimental agents.

Evaluations include assessment of autonomic and endothelial function in health and disease.

The unit also serves as a coordinating centre for multi-centre trials. Current ongoing trials include:

UNIVERSE - a study of statin therapy in the treatment of heart failure;

CHAT - NHMRC sponsored study looking at the utility of telephone support in rural and remote areas for the patient with heart failure to prevent rehospitalisation.

CHABLIS - study of addition of ARB versus increasing the dose of ACE inhibitor in patients with systolic heart failure.

The Unit also conducts a number of basic research programs within the Monash Medical School research laboratories on The Alfred campus.

Current programs include -

- The role of urotensin II in cardiac disease (NHMRC supported).
- The role of p38 MAP kinase system in heart failure disease progression.
- The role of Rho kinase in cardiac fibrosis.

Staff

Emma Ashton
Juan Aw (Alfred)
Rachel Denver (Dept of Medicine)
Steven Haas (doctoral student)
Andrew Kompa
Anhhuan Le (Alfred)
Jennifer Martin (Alfred)
Fiona See (Dept of Medicine)
Marina Skiba
Emma Windebank (Dept of Medicine)
Julie Yallop
Linton Harriss (Doctoral student)
Danny Liew (Doctoral student) fibrosis.

Stephen Haas



John Varigos



Research Units

Health Services Management Unit

Head of Unit

Professor Just Stoelwinder
MBBS, MD, FRACMA,
FACHSE, FAFPHM

Staff & students

Dr Syd Allen (MBBS
moderator)
Dr Jennifer Grafton
(Accounting)
Dr Lee Gruner (Quality
improvement)
Dr Guy Haller (MBBS
moderator)
Dr Julia Harrison (MBBS
moderator)
Dr Catherine Joyce (Health
policy)
Ms Helen Kemp (Clinical
leadership and management)
Ms Elizabeth Kennedy (Health
services law)
Dr Mark Lubliner (MBBS
moderator)
Ms Kelly Makarounas-
Kirchmann (Finance and
economic decision making)
Dr Deborah Roberts (Health
system development)

PhD Students (Co-supervised with other DEPM Units)

Dr Guy Haller
Dr Catherine Joyce
Mr Cameron Willis

Staff also provide advisory and consulting services in health service organisation and program design and performance evaluation; economic evaluation; pharmaceutical pricing; health policy development; safety, quality and accreditation and senior health executive coaching.

The prime focus of the Unit is the delivery of high quality, flexible education programs in health services management including -

Undergraduate:

MBBS, Year 4, Theme II, Health Management
BMSc, BMS3032, Health Policy and Management
MARA, IMS1031 Health and the Australian Health Care System

Postgraduate:

Graduate Certificate in Health Services Management
Graduate Diploma in Health Services Management
Master of Health Services Management
Master of Public Health, Health Services Management stream

Research:

The Unit is a DEPM partner in CREPS - the NHMRC Centre of Research Excellence in Patient Safety, which was established in 2005.

Participation in other projects includes:

Clinician attitudes to clinical indicators – ACHCS study
COSMIC - The Cost of Myocardial Infarction and Heart Failure in Australia
PITCH - Predictors Influencing The Change in Health Status of Elderly in Community Care

Elizabeth Kennedy



Catherine Joyce



Research Units

Human Rights & Bioethics Unit

Head of Unit
Associate Professor Bebe
Loff
BA LBB, MA(Med Law &
Ethics), PhD

The Human Rights and Bioethics Unit is involved in teaching at both postgraduate and undergraduate levels and offers advisory and consulting services in the fields of health and human rights, bioethics and public health law.

Consulting services have been provided to agencies of the United Nations and international nongovernmental organisations, governments of other countries and State and Federal governments in Australia.

The Unit is responsible for the Masters in International Research Bioethics, a program funded by the Fogarty International Center of the United States National Institutes of Health

The Unit also coordinates the Graduate Diploma in International Health and the Masters of International Health.

Below, Bebe Loff (2nd from left) with some international students; left Chandrani Jayasekara, Sriyakantha Beneragama, in centre Deborah Zion, lecturer; Yin Thet Nu Oo, Virginia Balanon, Shyamala Nataraj.



Research Units

Infectious Disease Epidemiology

Head of Unit
Dr Karin Leder
MBBS(Hons), FRACP, MPH

Infectious Disease Epidemiology includes the study of the prevalence of infections in populations, the identification of risk factors, and the development and evaluation of effective treatment measures and prevention strategies.

The unit focuses on areas of water quality and public health, environmental impacts on infections, traveller's health, and health issues in immigrants and refugees. The unit is also involved in studies on infectious diseases which represent important problems in clinical practice, including post-operative infections. Through its partnership in the Cooperative Research Centre for Water Quality and Treatment, the Infectious Disease Epidemiology Unit is a leading centre for research on public health issues relating to drinking water quality.

Research projects in this area include the health impacts of microbial pathogens in drinking water, and the development of improved monitoring and risk management systems for drinking water supplies. More recently the research activities of the unit have expanded to include public health aspects of alternative water sources (including rainwater, greywater and recycled water). These lower quality water sources are being increasingly used in urban areas for non-potable uses to conserve precious supplies of high quality drinking water, and as a result the potential for public exposure to these water types is increasing.

Staff

Dr Martha Sinclair
Ms Samantha Rizak
Ms Pam Lightbody
Ms Joanne O'Toole

Current research in this area

Water reuse and alternative water sources: practices, risk assessment and human health.

Developing evidence-based strategic water quality monitoring systems.

Both funded by the Cooperative Research Centre for Water Quality and Treatment

Other current or planned projects:

- Health Services Utilisation and Urban Dual Reticulation Systems
- Exposure Assessment in Urban Reticulation Systems
- A Series Of Exposure Experiments: Recycled Water And Alternative Water Sources
- Health Effects of Rainwater Consumption
- National Waterborne Disease Surveillance Database.
- Health issues in travelers visiting friends and relatives
- Risk factors for surgical site infection (SSI) complicating coronary artery bypass graft surgery (CABG)
- Infections in Trauma Patients
- Analysis of Registry of Splenectomised Patients

Jo O'Toole



Sam Rizak



Research Units

Musculoskeletal Unit

Head of Unit

A/Professor Flavia Cicuttini
MBBS(Hons), PhD, MSc,
DLSHTM, FRACP, FAFPHM

The work of the unit centres on the development of outcome methods in musculoskeletal disease and the application of these methods in the prevention and management of musculoskeletal disease.

The Musculoskeletal Unit has five current NHMRC grants and through key personnel, is also an active participant in two NHMRC Centres of Clinical Research Excellence: the NHMRC Centre of Clinical Research Excellence in Therapeutics - based at DEPM, and the NHMRC Centre of Clinical Research Excellence in Women's Health - based at the Women's Health Program, Department of Medicine, Monash University. These Centres will provide an opportunity for comprehensive and multidisciplinary research into the role of oestrogens and androgens in these disorders.

Research

- The effect of modifiable behavioural factors (diet, physical activity and use of hormone replacement) on knee cartilage in healthy, community based subjects.
- The effect of hormonal and immunological changes on joint cartilage in healthy women.
- The effect of biomechanical factors on knee cartilage in healthy subjects and those who have previously undergone a meniscectomy.
- The mechanism of action of obesity in the pathogenesis of knee OA and how this can be reversed.

Staff

Post-doctoral Fellows
Dr Donna Urquhart (also with Pre hospital and Trauma Unit)
Dr Anita Wluka

Research assistants
Judy Hankin
Kevin Morris
Yuanyuan Wang

PhD students
Zahid Ansari
Frank Buchanan
Mike Glisson
Fahad Hanna
Cassandra Szoeki (University of Melbourne)
Tina Racunica



From left, Fahad Hanna, Judy Hankin, Flavia Cicuttini, Anita Wluka, and in front Ferencz

Research Units

Pre-hospital Emergency & Trauma Unit

Head of Unit
Professor Peter Cameron
MBBS, MD, FACEM

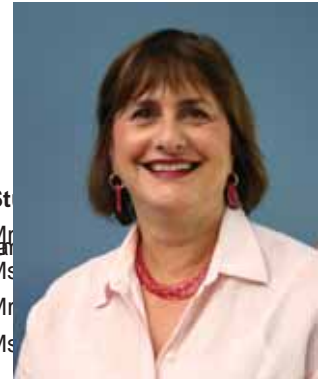
The Pre-hospital Emergency and Trauma Group is a vibrant and rapidly expanding research unit. The unit is responsible for a number of registries which are an important part of the trauma system and involve high level interaction with senior industry, government, specialist medical and other professional and academic personnel. The unit specializes in research in trauma epidemiology, injury prevention and management, prehospital care and health services and systems research.

The unit is responsible for the operation of The Victorian State Trauma Registry and Monitoring (VSTORM) Group; the Victorian Orthopaedic Trauma Registry (VOTOR)

and the Haemostasis Registry. Pre-hospital studies include the RICH Study - The Rapid Infusion of Cold Hartmann's for Hypothermia following Cardiac Arrest and the RSI Study - Rapid Sequence Intubation. There is also a Sports Injury Prevention Research Group looking at injuries in boxing, golf and football.

Staff

Ms Philippa Baker
Mr Travis Bloom
Dr Sue Evans
Dr Belinda Gabbe
Mr Andrew Hannaford
Ms Melissa Hart
Ms Louisa



St
Mr
Mr
Ms
Mr
Ms

Honorary

Mr Peter Beal
Mr Stephen Bellard
Ms Sue McLellan
Ms Mimi Morgan
Ms Emily Mulholland
Mr Andrew Palmer
Ms Louise Phillips
Mr M Pruksawongsin
Ms Natalie Silbert
Ms Emily Sim
Ms Liz Stewart
Ms Ann Sutherland

Belinda Gabbe



Mimi Morgan



Seminars

2005 was another successful year for department seminars with staff, students and guest speakers presenting on a very wide range of topics.

Some of our guest speakers in 2005 were -

Professor Jamie Cooper - 'The DECRA Trial, an international trial of surgical decompression for neurotrauma patients'.

Dr Marcus Flather, Brompton Hospital London - 'Clinical trials and development challenges'.

Associate Professor Damien Jolley - 'Pressure ulcers, PUPPS and sheepskins: a shaggy dog story'.

Dr Dallas English, Cancer Council Victoria - 'Diet, alcohol and obesity, and the risk of colorectal cancer'.

Dr Ian Gilmour, US Environmental Protection Agency - 'Health effects of combustion air pollutants'.

Professor Bill Leiss, University of Ottawa - 'Why risk is difficult to communicate'.

Professor Avraham Steinberg, Shaare Zedek Medical Center, Jerusalem - 'Medicine in a conflict zone'.

Assoc. Professor Peter Bruknet, University of Melbourne - 'Sports injury prevention - good for athletes, bad for business'.

Assoc. Professor David Clarke, Monash University - 'The differentiation of depressive subtypes'.

Professor Kit Fairley, University of Melbourne - 'Improving Victorians sexual health'.

Professor Paul Myles, Alfred Hospital - 'Results of the ENIGMA Trial: is this the end of nitrous oxide?'.

Professor Graeme Hart - 'ANZICS Databases: 13 years of binational quality assurance'.

Dr Ken Harvey, La Trobe University - 'Free markets and medical software'.

Professor Stephen Cordner, Victorian Institute Forensic Pathology - 'Forensic Pathology in the Aftermath of War and Internal Violence'.

Dr Jim Black, University of Melbourne - 'Real-time syndromic surveillance in Victoria'.

Dr Robin Bell - Centre for Womens Health - 'Androgens in women'.

Professor Terry Nolan, University of Melbourne - 'A new vaccine to prevent Human Papilloma Virus Infection and Cervical Cancer'.

Professor Steve Wesselingh, Burnet Institute - 'Appropriate biotechnology for resource poor countries'.

Our seminar calender is available at <http://www.med.monash.edu.au/epidemiology/events/>



John McNeil and Steve Wesselingh



John Varigos, Marcus Flather, and Henry Krum

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