



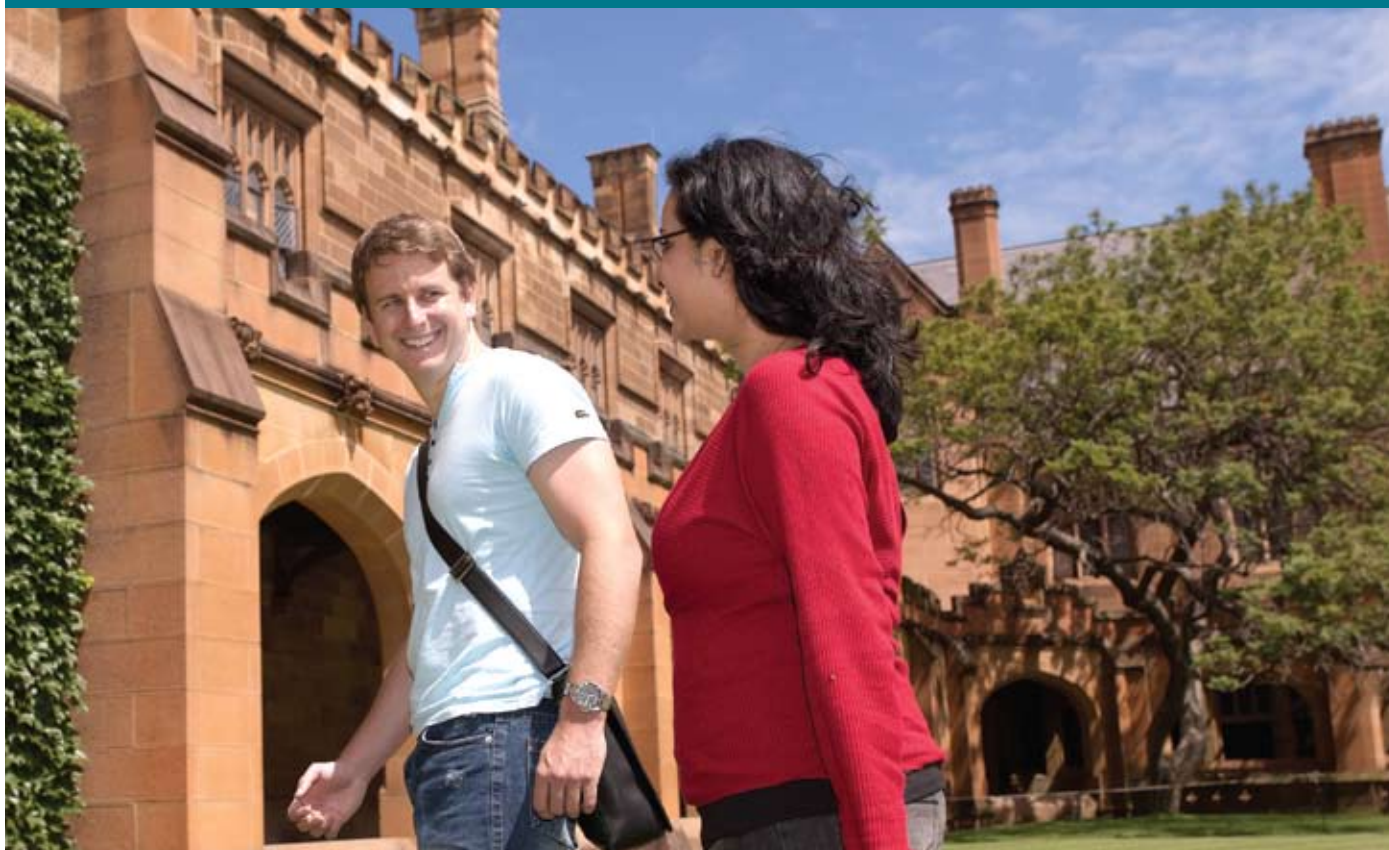
The  
University  
of Sydney

'09



Medicine  
postgraduate research and honours  
at the University of Sydney





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### Acknowledgement of Country

The Faculty of Medicine acknowledges the traditional owners of the land on which the University of Sydney campuses and the faculty's teaching hospitals are built: the Cadigal people of the Eora Nation, the Deerubbin people, the Tharawal people, the Ngunnawal people, the Wiradjuri people, the Gamilaroi people, the Bundjulong people, the Wiljali people and the Gureng Gureng people.

As we share our knowledge, teaching, learning, and research practices within this University, we also pay respect to the knowledge embedded forever within the Aboriginal Custodianship of Country.

# What we offer

## The University of Sydney

**The University of Sydney ranks among the finest in the world. It is one of Australia's leading research universities and is committed to producing world-class research and innovation of economic, social and cultural importance.**

Over the past 150 years, the University has built an international reputation for excellence in teaching. It has many notable alumni, including Nobel Prize winners, judges, pioneering surgeons, prime ministers, significant artists and industry leaders.

The University has a number of formal links with institutions throughout Asia, Europe and North America, which provide many study and research opportunities for staff and students.

The rich teaching, research and cultural life of the University is supported by extensive state-of-the-art laboratories and facilities. These include the largest university library holdings in the southern hemisphere, museums, information and communications technology equipment and networks, as well as excellent sporting and recreational activities.

## The Faculty of Medicine

The Faculty of Medicine at the University of Sydney is the oldest and largest in Australia and is part of Australia's most comprehensive cluster of health faculties, which also includes Health Sciences, Dentistry, Nursing and Midwifery, and Pharmacy. This range of expertise provides excellent opportunities for inter-professional learning.

For four years running, the University of Sydney has been ranked in the top 25 biomedical universities in the world by the Times Higher Education Supplement. The faculty's teaching and learning is directly informed by ground-breaking research in health, medicine and medical education.

The faculty has over 100 teaching hospitals and associated research units conducting cutting-edge education and research across the full spectrum of health and medical knowledge, from the medical sciences through to clinical medicine, public health, health service delivery and medical education. The faculty's research activities consistently attract high levels of funding – around \$90 million in 2008 – from the federal and state governments, overseas funding agencies and other public and private funding sources.

## An international research environment

The University is recognised globally for the quality of its teaching research. The opportunity to study under the supervision of academics who are leaders in their fields attracts applicants from around the world.

While 60 per cent of current postgraduate research students are from Australia, overall they come from 39 countries, including Bangladesh, Brazil, Cambodia, China, Iran, Italy, Kenya, New Zealand and South Africa.

<b>Africa</b>	<b>1.5%</b>
<b>Australia</b>	<b>59.5%</b>
<b>Central &amp; East Asia</b>	<b>11%</b>
<b>Central &amp; South America</b>	<b>1%</b>
<b>Europe</b>	<b>5.5%</b>
<b>Middle East</b>	<b>4%</b>
<b>North America</b>	<b>1%</b>
<b>Oceania</b>	<b>3.5%</b>
<b>South Asia</b>	<b>3%</b>
<b>South-East Asia</b>	<b>10%</b>



# What we offer

## Research degrees

A number of different research programs are available, where students conduct a research project under the supervision of an expert, culminating in the production of a thesis.

DEGREE NAME	DEGREE CODE	DURATION	CRICOS CODE
Doctor of Philosophy	KB000	3–4 years FT 3–8 years PT	006455J
Doctor of Philosophy (Biomedical Sciences)	KB003	3–4 years FT 3–8 years PT	063845N
Doctor of Public Health	KB001	3–5 years FT 6–7 years PT	039155D
Master of Philosophy	KC083	1–2 years FT 2–4 years PT	057895G
Master of Philosophy (Biomedical Sciences)	KC084	1–2 years FT 2–4 years PT	063846K
Master of Surgery (Research)	KC000	2–3 years FT 3–4 years PT	012841D

These degrees have two purposes. The first is to prepare a substantial piece of work which represents a significant contribution in a particular field of study; the second is to train candidates in general research methodology and equip them with transferable research skills.

## Honours

If you are a current undergraduate student of, or have graduated within the last two years with a bachelor degree from the faculties of Arts (Bachelor of Liberal Studies only), Science or Health Sciences, you may be eligible to enrol in an additional honours year with the Faculty of Medicine – the perfect start to a medical research career. This applies to students and graduates of all Australian universities.

Honours programs are available in the following disciplines:

- Anatomy and Histology
- Pathology
- Pharmacology
- Physiology
- Infectious Diseases and Immunology
- Biomedical Sciences

In addition to the many projects that these disciplines offer directly, there are many collaborative projects hosted by the Faculty of Medicine's hospital-based clinical schools and associated research institutes. Consequently, many of the projects in subject areas and disciplines described in this prospectus are also available as honours projects.

Entry is competitive. To qualify for an honours course, students must satisfy the entry requirements and criteria of both the relevant faculty and discipline. To be considered for admission to an honours program, students must:

- have qualified for or be a graduate with a pass degree from the relevant faculty, or hold an equivalent qualification from another institution
- have completed a relevant major relating to the intended honours discipline
- have achieved either a credit average in the relevant senior units of study (or equivalent at another institution)
- have met the Science Weighted Average Mark (SCIWAM\*) requirement of at least 65
- satisfy any additional criteria set by the relevant head of discipline
- be aware that admission is also subject to the availability of an appropriate supervisor and project.

In some schools and disciplines the SCIWAM requirement is much higher, particularly when entry is very competitive.

\* SCIWAM is the weighted average mark over all second and third year units attempted. See the Faculty of Science's website for a WAM calculator: [www.science.usyd.edu.au/cstudent/ug/wam.shtml](http://www.science.usyd.edu.au/cstudent/ug/wam.shtml).

It is not necessary to have a major in, or to have been taught by members of, a particular discipline in order to do an honours program, but undergraduate subjects must be relevant to the topic of the honours project.



Prior to applying for an honours project, applicants should consult the Faculty of Medicine about available supervisors and projects, by sending an email outlining their interests to [honours@med.usyd.edu.au](mailto:honours@med.usyd.edu.au).

Available honours projects and admission requirements can be found at:

- **Anatomy:** [www.anatomy.usyd.edu.au](http://www.anatomy.usyd.edu.au)
- **Pathology:** [www.pathology.usyd.edu.au](http://www.pathology.usyd.edu.au)
- **Pharmacology:** [www.usyd.edu.au/pharmacology](http://www.usyd.edu.au/pharmacology)
- **Physiology:** [www.physiol.usyd.edu.au](http://www.physiol.usyd.edu.au)
- **Infectious Diseases and Immunology:** [www.infectiousdiseasesandimmunology.med.usyd.edu.au](http://www.infectiousdiseasesandimmunology.med.usyd.edu.au)

### Honours scholarships

Merit-based honours scholarships are available to students who:

- are enrolled in honours in one of the above disciplines (including Biomedical Sciences)
- are not receiving another honours scholarship
- have a SCIWAM of 75 or above
- apply for the scholarship.

For more details, and the scholarship application form, see [www.medfac.usyd.edu.au/scholarwards/honours/index.php](http://www.medfac.usyd.edu.au/scholarwards/honours/index.php).

# Finding a research supervisor

Before you submit an application form you should:

- define your research topic
- ensure that appropriate research facilities are available
- find a research supervisor with expertise in the relevant field.

The Research Supervisor Connect website ([www.usyd.edu.au/research/opportunities](http://www.usyd.edu.au/research/opportunities)) can help you with these steps, as can the postgraduate coordinator of the discipline you are interested in. Contact details are listed under the relevant discipline in this prospectus.

Research Supervisor Connect contains detailed information about supervisors and projects from disciplines, schools and associated research institutes of the University of Sydney. You can search for research opportunities by keywords, including broad or specific areas of interest, supervisors' names and names of institutes. Opportunities that match your query will be displayed, with links to more information about the project, the supervisor, the research location and related opportunities. You can submit an enquiry for any listed project which will be directed to the relevant contact person. You can also submit a general enquiry.

## Research Supervisor Connect

[www.usyd.edu.au/research/opportunities](http://www.usyd.edu.au/research/opportunities)



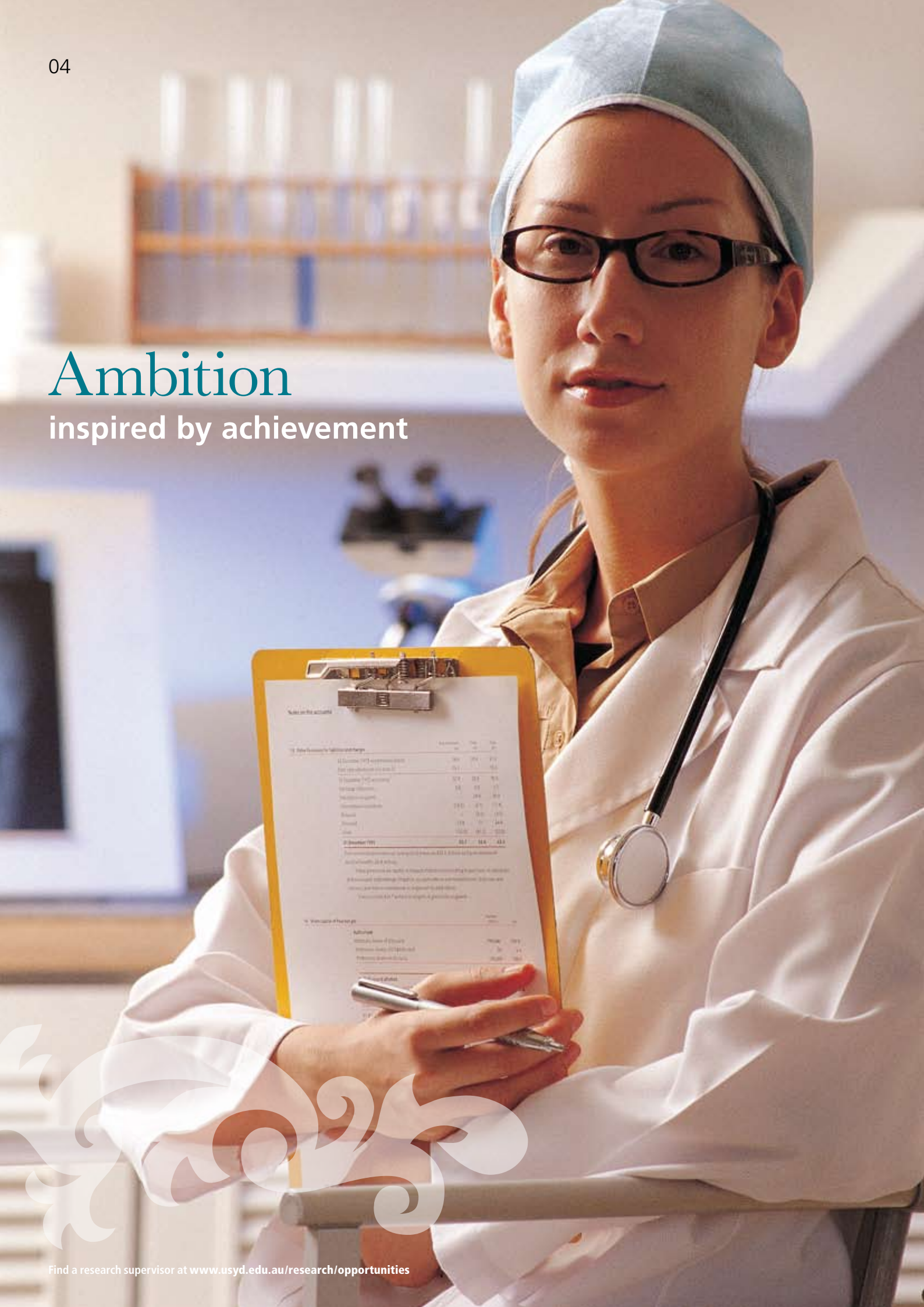
## Research units

Over 70 research centres and institutes are associated with the Faculty of Medicine, all working at the cutting edge of medical research. These organisations collaborate with the faculty to extend the boundaries of medical knowledge, provide the community with the latest developments in a huge range of disciplines and give students first-hand access to top researchers and current research findings. More information on the research units can be found at [www.medfac.usyd.edu.au/research/units](http://www.medfac.usyd.edu.au/research/units).

- > ANZAC Research Institute
- > Australian Centre for Agricultural Health and Safety
- > Australian Centre for Health Promotion
- > Australian Health Policy Institute
- > Australian Red Cross Blood Service Research Unit of Transfusion Medicine and Immunogenetics
- > AW Morrow Gastroenterology and Liver Centre
- > Bosch Institute
- > Brain and Mind Research Institute
- > Broken Hill Centre for Remote Health Research
- > Cancer Research Network
- > Centenary Institute of Cancer Medicine and Cell Biology
- > Centre for Behavioural Sciences in Medicine
- > Centre for Developmental Disability Studies
- > Centre for Education and Research on Ageing (CERA)
- > Centre for Infectious Diseases and Microbiology
- > Centre for Medical Psychology and Evidence-Based Decision Making (CMPED)
- > Centre for Perinatal Health Services Research
- > Centre for Values, Ethics and the Law in Medicine (VELIM)
- > Children's Medical Research Institute (CMRI)
- > Department of Anatomical Pathology, Royal Prince Alfred Hospital
- > Department of Endocrinology, Royal Prince Alfred Hospital
- > Family Medicine Research Centre
- > George Institute for International Health
- > Heart Research Institute (HRI)
- > Institute for Immunology and Allergy Research
- > Institute of Bone and Joint Research
- > Institute of Clinical Neurosciences
- > Institute of Clinical Pathology and Medical Research (ICPMR)
- > Institute of Endocrinology and Diabetes
- > Institute of Haematology (incorporating Kanematsu Laboratories)
- > Institute of Neuromuscular Research, Children's Hospital
- > Institute of Obesity, Nutrition and Exercise (IONE)
- > Institute of Paediatric Endocrinology, Diabetes and Metabolism
- > Kolling Institute of Medical Research
- > Melanoma Institute of Australia
- > Menzies School of Health Research
- > National Centre for Classification in Health
- > National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases
- > Nepean Centre for Perinatal Care (Perinatal Medicine and Gynaecology)
- > Nepean Hospital Gastroenterology Research Unit
- > NHMRC Clinical Trials Centre
- > Northern Blood Research Centre
- > NSW Breast Cancer Institute
- > NSW Melanoma Network
- > Pain Management and Research Institute
- > The Pam McLean Cancer Communications Centre
- > Poche Centre for Indigenous Health
- > Save Sight Institute
- > Skin and Cancer Foundation Australia
- > Sutton Arthritis Research Laboratories
- > Sydney Bioinformatics
- > Sydney Cancer Centre
- > Sydney Cochlear Implant Centre (SCIC)
- > Sydney South West Area Health Service Drug and Alcohol Unit
- > Sydney South West Laboratory Service: Department of Forensic Medicine
- > Westmead Millennium Institute of Health Research
- > Woolcock Institute of Medical Research

# Ambition

inspired by achievement



# Anaesthesia



## For more information

Professor Peter Kam, postgraduate coordinator  
Email: [pgc@anaesthesia.med.usyd.edu.au](mailto:pgc@anaesthesia.med.usyd.edu.au)

Clinical research in anaesthesia is available at all of the teaching hospitals by consultation with senior clinical academic staff. Research laboratories, located at the Royal Prince Alfred and Royal North Shore hospitals, include large and small animal research facilities, human studies laboratories, analytical chemistry laboratories, a neurophysiological laboratory and a cardiorespiratory exercise laboratory.

## Broad research areas

- Anaesthesia and surgery
- Cardiorespiratory measurement
- Cardiorespiratory and neurophysiological pharmacology
- Drug stereochemistry in anaesthesia and pain management
- Pain control and monitoring
- Pain mechanisms and rehabilitation
- Pharmacokinetics and pharmacodynamics of opioid and antiprostanoid analgesic agents
- Spinal mechanisms of analgesia and clinical studies of new spinal analgesics
- Studies of release and blockade of pain producing chemicals
- Neurophysiological monitoring
- Effects of anaesthetic agents on cerebral blood flow using transcranial doppler studies
- Effects of acid base disturbances on blood coagulation
- Effects of resuscitation therapy on immune markers in a pig transplant model

## Recently published theses

**Thesis title:** *Side effects of analgesic drugs: development and application of new techniques for a pharmacokinetic and pharmacodynamic approach*

**Candidate:** Leigh Aaron Ladd

**Supervisor:** Professor Laurence Mather, Northern Clinical School, Royal North Shore Hospital

**Thesis title:** *Systematic analysis of the partial rebreathing method for measuring pulmonary blood flow*

**Candidate:** Johnny Sui Tai Yem

**Supervisor:** Dr Martin John Turner, Central Clinical School, Royal Prince Alfred Hospital

# Anatomy and Histology

## close up

### Dr Meiya Sutisno, Graduate, Doctor of Philosophy in Medicine

It was the sheer beauty of the human form that inspired Dr Meiya Sutisno to become a forensic anatomist.

"My career choice was based on my love for the human face and body – its anatomical make-up and the amazing variations of movement that it can generate," she explains.

After gaining her BSc at the University of Sydney in 1993, Meiya completed an honours year in Forensic Anatomy. She then moved to the Faculty of Medicine and graduated with a Doctor of Philosophy in Medicine in 2003.

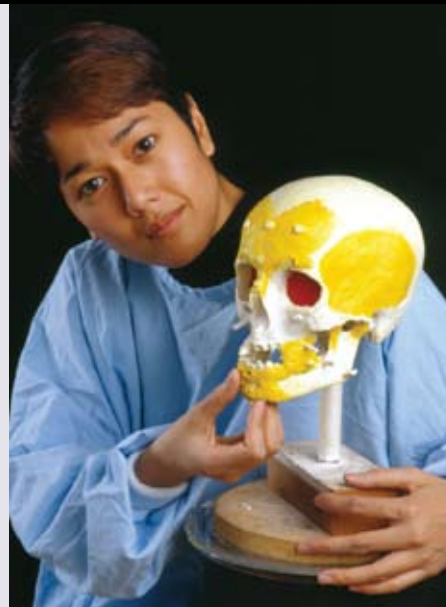
Looking back, Meiya says the University prepared her well for her career in forensic anatomy. "It is a beautiful place to study with excellent facilities for research, and its students are widely recognised as having a high standard of education," she says. "I am proud to be a graduate."

Since completing her PhD, Meiya has rapidly established herself as one of the most respected forensic anatomists in the country. Her work in reconstructing faces and bodies – both from human remains and from video images – has played an important role in a number of high-profile cases.

Meiya helped identify the remains of a suspected suicide bomber after the 2004 bombing of the Australian Embassy in Jakarta and she provided identification evidence at the widely publicised murder trial of Bradley John Murdoch. One of her most impressive achievements has been the development of a system of mapping faces and bodies from CCTV images which has been introduced into courts across Australia.

While her job can be challenging and confronting, Meiya says she is motivated by knowing that what she does makes a difference.

"In helping to provide answers to authorities in criminal investigations and in matters involving unknown remains, what keeps me going is the ability to provide closure for family members who have lost their loved ones."



**Anatomy and Histology is one of the larger disciplines in the School of Medical Sciences and provides teaching at undergraduate and postgraduate levels. Many of the discipline's academics are actively researching in areas including neurobiology, vision, cell and developmental biology, marine biology and cardiology.**

A high-resolution transmission electron microscope and confocal microscope with technical assistance are available together with specimen preparation facilities. Additional transmission and scanning electron microscope facilities are available through the University's Electron Microscope Unit. Other facilities include automated electrophoresis, high-pressure liquid chromatography, standard histology, immunocytochemistry, in situ hybridisation and surgery.

### Broad research areas:

- Alzheimer's disease
- Biology and physiology of the uterus in fertility, disease and the evolution of live birth
- Development of the ocular lens
- Cataract research
- Developmental neurobiology of glia and vasculature
- Stem cells in regenerative medicine
- Molecular basis of human heart failure
- Regulation of cell movement
- Sensing environmental toxicants
- Development and evolution
- Neurochemistry
- Muscle development
- Osteology
- Parkinson's disease
- Visual pathways and their development

Students considering undertaking a doctorate or master's by research are encouraged to use the Research Supervisor Connect website to find opportunities and supervisors, or talk with the postgraduate coordinator, Associate Professor Frank Lovicu, to discuss their eligibility and options.

### For more information

Associate Professor Frank Lovicu,  
postgraduate coordinator  
Email: [pgc@anatomy.usyd.edu.au](mailto:pgc@anatomy.usyd.edu.au)

### Recently published theses

**Thesis title:** *Characterisation of growth factors involved in lens cell proliferation*

**Candidate:** Nagalaxmi Iyengar

**Supervisor:** Associate Professor Frank Lovicu, School of Medical Sciences, Camperdown Campus and Save Sight Institute, Sydney

**Thesis title:** *Evolution of maternal provisioning in ophiuroids: characterisation of egg nutrients and their roles in development*

**Candidate:** Inke Kristine Falkner

**Supervisor:** Professor Maria Byrne, School of Medical Sciences, Camperdown Campus; Director, One Tree Island Research Station

**Thesis title:** *The Postero-Temporal Visual Cortex Modulates the Neuronal Responses of Cells in Cat's Areas 17 and 19*

**Candidate:** Jin Yu Huang

**Supervisor:** Professor Bogdan Dreher, School of Medical Sciences, Camperdown Campus

# Biomedical Science



The discipline of Biomedical Science is based at Cumberland Campus, in western Sydney, and has well-equipped laboratories with good access to patients and experimental subjects.

## Broad research areas

- Criteria for student assessment
- Student perceptions of learning biochemistry
- Reflexes and biomechanics in neurology
- Signal processing in visual cortex
- Shoulder function and dysfunction
- Pathology of Alzheimer's disease
- Antimicrobial resistance and gastric microbiology
- Mechanisms of vascular disease
- Anti-cancer drug design
- Genetic and reproductive toxicology
- Mechanisms of teratogenicity

## Current research projects

**Project title:** *Muscle activation patterns during common rehabilitation exercises – an electromyographic study*

**Candidate:** Duangjai Wattanaprakornkul

**Supervisor:** Dr Karen Anne Ginn, School of Medical Sciences, Camperdown Campus

**Project title:** *Oxidative protein expression in Alzheimer's disease*

**Candidate:** Ibrahim A Al-Odat

**Supervisor:** Dr Damian Holsinger, School of Medical Sciences, Cumberland Campus

**Project title:** *Studies on new mononuclear and polynuclear platinum compounds with trans-geometry*

**Candidate:** Fehmida Fasim

**Supervisor:** Associate Professor Fazlul Huq, School of Medical Sciences, Cumberland Campus

## For more information

Dr Alan Freeman, postgraduate coordinator  
Email: [pgc-biomedical@med.usyd.edu.au](mailto:pgc-biomedical@med.usyd.edu.au)

# Clinical Ophthalmology and Eye Health

The discipline has a strong clinical base, treating approximately 65,000 patients every year at Sydney Eye Hospital and 15,000 patients a year at Westmead Hospital. Research students may have access to related diagnostic and therapeutic equipment, including sophisticated lasers.

## Broad research areas:

Age-related macular degeneration  
 Clinical visual science  
 Diabetic retinopathy  
 Electrophysiology  
 Epidemiology  
 External eye disease and immunology of the cornea  
 Glaucoma  
 Cataract  
 Medical retina  
 Metabolism of the lens  
 Ocular tumours – retinoblastoma and uveal melanoma  
 Paediatric ophthalmology  
 Visual science

## For more information

Ms Eleanor Viney, course administrator  
 Email: [eviney@eye.usyd.edu.au](mailto:eviney@eye.usyd.edu.au)

## Recently published theses

**Thesis title:** *Visual impairment in Australian school children: prevalence, causes and associations*

**Candidate:** Dana Robaei

**Supervisor:** Professor Paul Mitchell, Westmead Clinical School, Westmead Hospital

**Thesis title:** *Age-related macular degeneration: histopathological and serum autoantibody studies*

**Candidate:** Svetlana Cherepanoff

**Supervisor:** Associate Professor Mark Gillies, Sydney Eye Hospital



# General Practice



**This discipline is at the forefront of general practice research in Australia, addressing a wide range of topics using both quantitative and qualitative methods. There is considerable expertise available in survey research methodology, questionnaire development and the handling of complex databases, and qualitative methodologies. There is no clinical base, but the discipline has a strong relationship with a wide network of general practitioners.**

## Broad research areas

Adolescent sexual health  
 Asthma in the community  
 Clinical research in general practice  
 Cardiovascular risk reduction  
 Doctor-patient interaction  
 Doctors' health  
 Educational research  
 Errors and quality of care in general practice  
 Health of young people  
 Health services research  
 HIV and hepatitis C management in general practice  
 Information technology in health care  
 Information technology as a support to medical curriculum and general practice  
 Men's health  
 Primary health care  
 Qualitative research in health care  
 Stress and performance in new medical graduates  
 Women's health issues

## Recently published theses

**Thesis title:** *The measurement of threats to patient safety in Australian general practice*

**Candidate:** Meredith Anne Blatt Makeham

**Supervisor:** Professor Michael Kidd, Central Clinical School, Balmain Hospital

**Thesis title:** *An evaluation of a practice assessment model for the diagnosis and management of depression in Australian general practice*

**Candidate:** Philip Marshall

**Supervisor:** Professor Michael Kidd, Central Clinical School, Balmain Hospital

## Current research projects:

**Project title:** *To explore the relationship between sexually transmitted infections and young people's sexuality*

**Candidate:** Melissa Shi-Ling Kang

**Supervisor:** Professor Tim Usherwood

## For more information

Professor Tim Usherwood, postgraduate coordinator

Email: [timu@med.usyd.edu.au](mailto:timu@med.usyd.edu.au)

# Infectious Diseases and Immunology

The discipline has facilities for the study of infectious agents, including containment areas for handling pathogens and performance of molecular analyses, cell culture laboratories, PCR, PAGE, LEGS, ELISA, FPLC systems. The discipline's expertise lies in studying micro-organisms and immunological responses to infection. It aims to contribute directly to improving the health of the Australian and international community through research which targets current problems, trials of new drugs and vaccines. Many of the research programs involve formal and informal collaboration with colleagues in other university disciplines, teaching hospitals and federal and state health departments.

## Broad research areas

Blood-borne viruses  
 Cell biology of HPV carcinogenesis  
 Papilloma viruses  
 HPV and skin cancer  
 Epidemiology of multiply resistant pseudomonas aeruginosa in cystic fibrosis  
 Molecular mechanisms of *Pseudomonas aeruginosa* infectivity and virulence  
*Pseudomonas aeruginosa* biofilms in cystic fibrosis  
 Microbial molecular epidemiology and antibiotic resistance  
 Staphylococcus aureus  
 Inflammatory cytokines  
 Immunobiology of Varicella zoster virus infection  
 Neuropathogenesis of Varicella zoster virus infection  
 Molecular evolution of arboviruses  
 Immune response to chronic lung pathogens  
 Virulence determinant of pathogenic mycobacteria  
 Immunology of mycobacterial infections  
 Vaccine development for tuberculosis  
 Role of TNF in control of intracellular infections



Genetic control of immune response to mycobacterial infection  
 Interaction of influenza and bacterial infections in the lung  
 Response of respiratory epithelial cells to infection  
 Mechanism of Schwann cell damage in leprosy  
 T cell responses to allergens and asthma  
 Molecular analyses of human enteroviruses  
 Human adenovirus infections and disease  
 Molecular evolution of arboviruses

The discipline welcomes enquiries from prospective postgraduate students with medical, dental, veterinary and general scientific training.

## For more information

Dr Allison Abendroth, postgraduate coordinator

Email: [pgc@immunology.med.usyd.edu.au](mailto:pgc@immunology.med.usyd.edu.au)

## Recently submitted theses

**Thesis title:** *Characterisation of genotypes and phenotypes of Pseudomonas aeruginosa infecting people with cystic fibrosis*

**Candidate:** Pholawat Tingpej

**Supervisor:** Associate Professor Colin Harbour, Central Clinical School, Blackburn Building

**Thesis title:** *The contribution of parvovirus B19 infection to cases of severe anaemia among young children in malaria-endemic areas*

**Candidate:** James William Wildig

**Supervisor:** Emeritus Professor Yvonne Cossart AO, Central Clinical School, Blackburn Building

# Medical Education

The Office of Postgraduate Medical Education has a strong national and international track record of significant contributions to medical education research, educational development and health policy in three major areas: professionalism and patient safety, inter-professional learning, and the study of teaching, learning and assessment.

## Broad research areas

Patient safety  
 Professionalism  
 Clinical reasoning  
 Inter-professional learning  
 Constructivism and small group learning  
 Workplace learning and assessment  
 Consumer involvement in education

## Current research projects

**Project title:** *Bridging cultural, educational and religious gaps: The Saudi Arabian health science project (SAHSP)*

**Candidate:** Judith Amed

**Supervisor:** Associate Professor Christopher Roberts, Medical Education, Camperdown Campus

**Project title:** *Intellectual disability and society*

**Candidate:** Barbara Ruth Field

**Supervisor:** Associate Professor Jill Gordon, Medical Education, Camperdown Campus

**Project title:** *Validity and reliability of learning diaries for the assessment of generic competencies of trainee pathologists*

**Candidate:** Wendy Margaret Pryor

**Supervisor:** Associate Professor Christopher Roberts, Medical Education, Camperdown Campus

### For more information

Associate Professor Charlotte Rees,  
 postgraduate coordinator  
 Email: [pgc@meded.usyd.edu.au](mailto:pgc@meded.usyd.edu.au)



# Medicine

Research conducted within the Discipline of Medicine encompasses laboratory-based techniques (particularly molecular and cell biology), large organ physiology, epidemiological and psychosocial approaches. Clinical research, clinical trials, biomedical engineering towards therapeutic devices and health economics are also part of the research portfolio. A particular strength of the Discipline of Medicine is the bridge between laboratory and clinic.

## Broad research areas

Addiction medicine  
 Behavioural sciences in medicine  
 Cardiology  
 Dermatology – **now a separate discipline**  
 Developmental disabilities  
 Emergency medicine – **now a separate discipline**  
 Endocrinology  
 Gastroenterology and hepatology  
 Geriatric medicine  
 Haematology  
 Infection and immunity  
 Intensive care – **now a separate discipline**  
 Medical genetics – **now a separate discipline**  
 Molecular medicine  
 Neurology  
 Nuclear medicine  
 Oncology  
 Rehabilitation medicine  
 Renal medicine  
 Respiratory medicine  
 Rheumatology  
 Sleep disorders medicine



## Recently published theses

**Thesis title:** *In vivo trafficking of HIV-1 in lymphoid and non-lymphoid organs at late stages of AIDS*

**Candidate:** Da'ed Haddad

**Supervisor:** Dr Nitin Saxena, Westmead Millennium Institute

**Thesis title:** *Male hormonal contraception*

**Candidate:** Leo Anthony Turner

**Supervisor:** Professor David Handelsman, ANZAC Research Institute, Concord Hospital

**Thesis title:** *A clinicopathological study of sensory peripheral neuropathies and restless legs syndrome*

**Candidate:** Penelope Jane Spring

**Supervisor:** Dr Judith Spies, Central Clinical School, Royal Prince Alfred Hospital

## For more information

Ms Dina Bowe, postgraduate administrator  
 Email: [pgc@medicine.usyd.edu.au](mailto:pgc@medicine.usyd.edu.au)

# Obstetrics and Gynaecology



Opportunities exist for research studies in basic laboratory research or clinical studies, including HPLC, electrophoretic technology, histochemistry, flow cytometry, peptide sequencing, assay of reproductive hormones, tissue culture, DNA analysis, micro-manipulation techniques involving embryos and cytogenetics.

## Broad research areas:

- Reproductive immunology
- Reproductive endocrinology
- Placentation and its related disorders
- Medical complications of pregnancy
- Foetal assessment
- Clinical trials
- Menopause
- Fertility and its related management
- Gynaecological oncology
- Perinatal population health

## Recently published theses

**Thesis title:** *Mechanism of action of emergency contraception*

**Candidate:** Natalia Novikova

**Supervisor:** Professor Ian Fraser AO, The Queen Elizabeth II Research Institute for Mothers and Infants, Camperdown Campus

**Thesis title:** *Functional gastrointestinal disorders in women with eating disorders*

**Candidate:** Catherine Marguerite Boyd

**Supervisor:** Associate Professor Suzanne Abraham, Northern Clinical School, Royal North Shore Hospital

**Thesis title:** *A proteomic investigation into the pathogenesis of endometriosis*

**Candidate:** Sara Maria ten Have

**Supervisor:** Dr Robert Markham, The Queen Elizabeth II Research Institute for Mothers and Infants, Camperdown campus

## For more information

Professor Jonathan Morris, postgraduate coordinator

Email: [jmorris@med.usyd.edu.au](mailto:jmorris@med.usyd.edu.au)

# Paediatrics and Child Health



The Children's Hospital at Westmead is fully equipped for a range of genetic and cell biology studies, including morphologic, biochemical and molecular genetic investigation, as well as studies of the pathophysiology of diseases in childhood and adolescence. Opportunities also exist for epidemiological studies in collaboration with the clinical paediatric medicine and surgery departments in the Children's Hospital at Westmead.

## Broad research areas

- Adolescent medicine
- Clinical neurology in paediatrics
- Developmental paediatrics
- General paediatrics
- Human genetics
- Neonatology
- Paediatric cardiology
- Paediatric gastroenterology, nutrition, endocrinology and diabetes
- Paediatric infectious diseases
- Paediatric nephrology
- Paediatric oncology
- Paediatric respiratory medicine
- Paediatric surgery
- Population health

## For more information

Dr Russell Dale, postgraduate coordinator  
Email: [pgmail@chw.edu.au](mailto:pgmail@chw.edu.au)

## Recently published theses

**Thesis title:** *Insulin resistance and features of the metabolic syndrome in children and adolescents*

**Candidate:** Shubha Srinivasan

**Supervisor:** Professor Louise Baur, Children's Hospital at Westmead

**Thesis title:** *The cardiorespiratory consequences of very preterm birth*

**Candidate:** Lucia Jane Smith

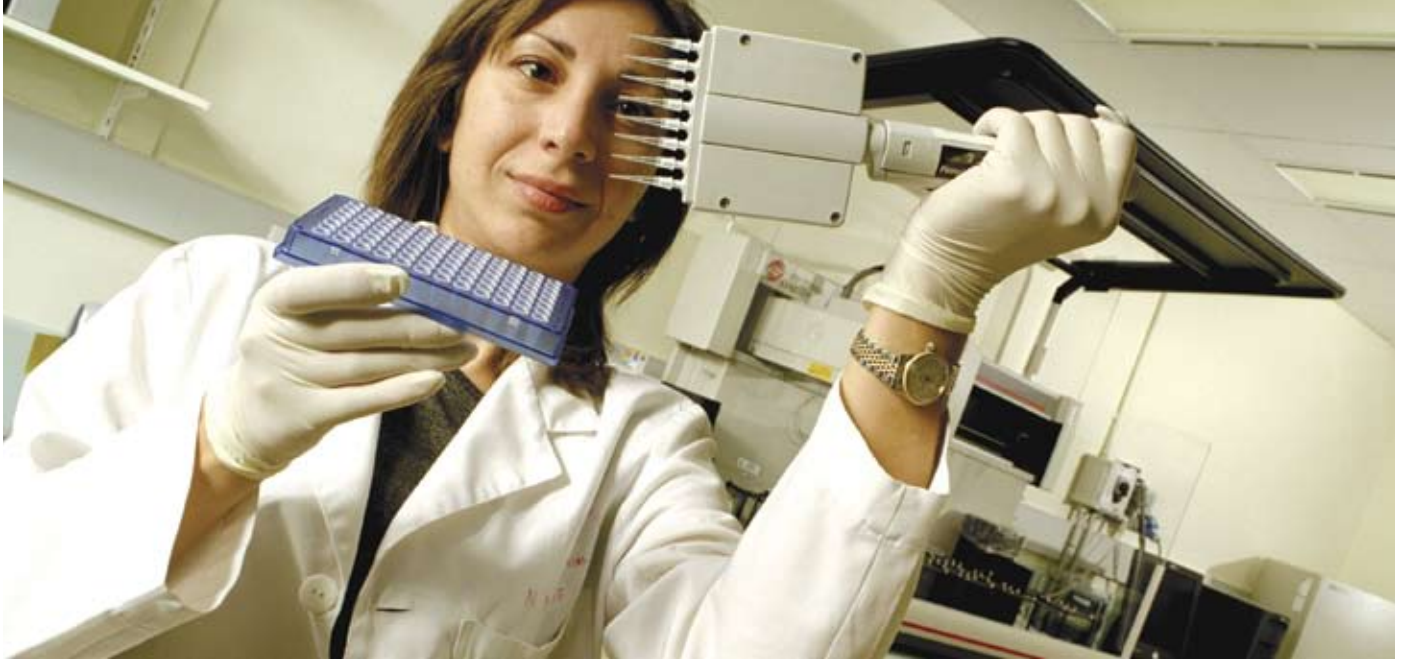
**Supervisor:** Dr Dominic Fitzgerald, Children's Hospital at Westmead

**Thesis title:** *Cyclin dependent kinase like 5 (CDKL5) mutation screening in Rett syndrome and related clinical disorders*

**Candidate:** Rose White

**Supervisor:** Professor John Christodoulou, Children's Hospital at Westmead

# Pathology



The discipline is responsible for teaching Pathology to students of Medicine, Dentistry, Science and Medical Science. Research is well served by special units covering neuropathology, immunopathology, immunobiology, muscle physiology, cardiovascular disease and inflammation. The discipline has two tissue banks and a number of specialised research laboratories for tissue culture, biochemical analysis, molecular biology, flow cytometry, muscle and nerve studies, morphometry and molecular analysis.

## Broad research areas

Dementia  
 Motor neuron disease  
 Gastrointestinal tract pathology  
 Disorders of striated and cardiac muscle protein  
 Malaria  
 Atherosclerosis  
 Cancer  
 Viral immunopathology  
 Iron metabolism

## Recently published theses

**Thesis title:** *Metabolic changes in experimental cerebral malaria and its role in disease progression*

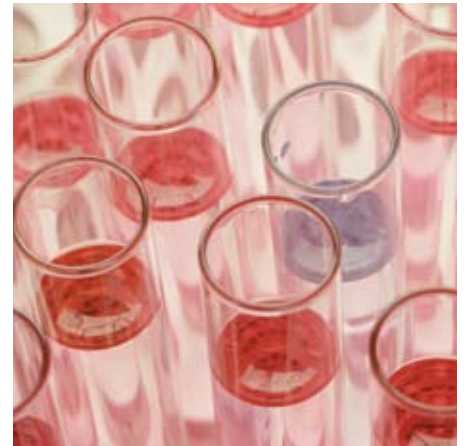
**Candidate:** Sapan Parekh

**Supervisor:** Professor Nicholas Hunt, School of Medical Sciences, Camperdown Campus

**Thesis title:** *Environmental toxicants in sporadic motor neuron disease*

**Candidate:** Julia Marie Morahan

**Supervisor:** Associate Professor Roger Pamphlett, School of Medical Sciences, Camperdown Campus



## For more information

Postgraduate coordinator

Email: [pgc@pathology.usyd.edu.au](mailto:pgc@pathology.usyd.edu.au)

Website: [www.pathology.usyd.edu.au](http://www.pathology.usyd.edu.au)

# Pharmacology



The discipline is well equipped for research and teaching with good facilities for isolated tissue work, tissue culture, behavioural investigations, biochemical, cardiovascular, electrophysiological, molecular biological, radioligand binding, neurochemical and synthetic chemical studies, together with mechanical and electrical workshops.

Major items of equipment include atomic absorption, fluorescence, infrared, nuclear magnetic and ultraviolet spectrometers, gas chromatograph-mass spectrometer, high performance liquid chromatographs and beta radiation counters.

There are computers for anatomical, autoradiographical, behavioural, cardiovascular and electrophysiological measurements, a colour graphics system for computer-assisted drug design and facilities for data processing and slide-making.

## Broad research areas

- Chemotherapy
- Clinical pharmacology
- Drugs and the elderly
- GABA receptors and transporters
- Medicinal chemistry
- Molecular pharmacology of neurotransmitter transporters
- Neuropharmacology of Parkinson's disease
- Pharmacoinformatics
- Respiratory pharmacology

The discipline is well equipped with facilities for molecular biology, tissue culture, electrophysiology, NMR, protein purification and animal behaviour testing.

## For more information

Associate Professor Robert Vandenberg,  
postgraduate coordinator  
Email: [robv@pharmacology.usyd.edu.au](mailto:robv@pharmacology.usyd.edu.au)

## Recently published theses

**Thesis title:** *Functions of the cholinergic system in the morbidities associated with Alzheimer's disease and the further evaluation of tools for the molecular imaging of this system*

**Candidate:** Mitchell Owen Jeffrey Quinlivan

**Supervisor:** Dr Jasmine Henderson, School of Medical Sciences, Camperdown Campus

**Thesis title:** *Driver behaviours when sober and under the influence of alcohol: the effect of additional task demands and driver age*

**Candidate:** Stefanie Yuzee Leung

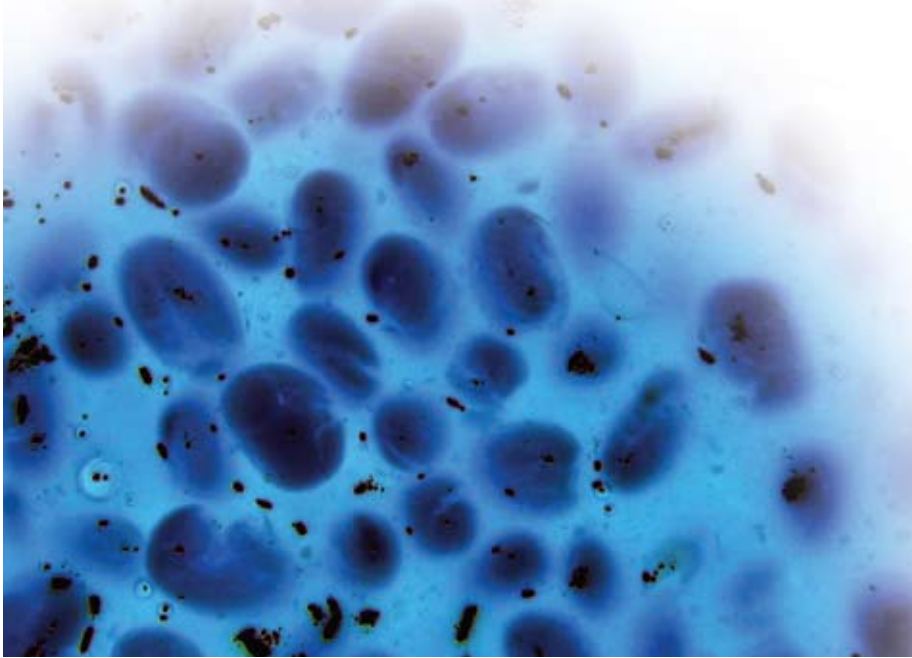
**Supervisor:** Associate Professor Graham Starmer, School of Medical Sciences, Camperdown Campus

**Thesis title:** *Pharmacodynamic measurements and predictors of clinical outcome to thymidylate synthase inhibition*

**Candidate:** Kong Ming Li

**Supervisor:** Dr Laurent Rivory, School of Medical Sciences, Royal Prince Alfred Hospital

# Physiology



Students have access to laboratories (depending on their area of research) at the Bosch Institute, the Royal North Shore Hospital and the Anderson Stuart Building, including a molecular biology facility, advanced microscopy facility, anechoic chamber and flow cytometry laboratory.

## Broad research areas

Auditory neuroscience  
 Basic and clinical genomics  
 Bone and skin cells  
 Cardiovascular neuroscience  
 Developmental physiology  
 Epithelial transport  
 Human reproduction  
 Hypertension and stroke research  
 Molecular neurobiology  
 Muscle cell function and research  
 Neurobiology  
 Visual function  
 Andrology  
 Cortical development  
 Systems neuroscience  
 Visual cognition

## Recently published theses

**Thesis title:** *Laryngeal muscle fibres and their regulation*

**Candidate:** Hannah Rhee

**Supervisor:** Dr Joseph Foon Yoong Hoh, School of Medical Sciences, Camperdown Campus

**Thesis title:** *Identification of Cl<sup>-</sup> channels and their currents in the mouse pre-implantation embryo*

**Candidate:** Isabel Alicia Arnaiz

**Supervisor:** Dr Margot Day, School of Medical Sciences, Camperdown Campus

**Thesis title:** *Functional neuroanatomy of tachykinins in brainstem autonomic regulation*

**Candidate:** John Murray Makeham

**Supervisor:** Professor Paul Pilowsky, School of Medical Sciences, Camperdown Campus

## For more information

Dr Margot Day, postgraduate coordinator

Email: [pgc@physiology.usyd.edu.au](mailto:pgc@physiology.usyd.edu.au)



# Psychological Medicine

Research projects in psychological medicine are available in all of the faculty's clinical schools. Brain imaging facilities are available at Royal North Shore Hospital and Westmead Hospital, including MRI and fMRI machines; other equipment includes recording of EEG and sensory processing (P-300).

## Broad research areas

Affective disorders  
Eating disorders  
Human brain imaging  
Perinatal research  
Child and adolescent psychiatry  
Psychiatry of old age  
Schizophrenia  
Psychopharmacology or drug and alcohol  
Psychotherapy  
Community and rural health  
Stress and psychosomatic

## For more information

Dr Glenn Hunt, postgraduate coordinator  
Email: [pgc@psychmed.usyd.edu.au](mailto:pgc@psychmed.usyd.edu.au)

## Recently published theses

**Thesis title:** *Emotional intelligence and the emotional brain: a battery of tests of ability applied with high school students and adolescents with high-functioning autistic spectrum disorders*

**Candidate:** Belinda Mae Pratt

**Supervisor:** Dr David Dossetor, Westmead Children's Hospital

**Thesis title:** *The hypothalamic-pituitary-gonadal axis in male psychiatric inpatients*

**Candidate:** Bilyana Brdaroska

**Supervisor:** Professor Gordon Johnson, Concord Clinical School, Concord Hospital



# Public Health



Research into public health and health services has been recognised as a particular strength of the University of Sydney. The library has a specialist public health branch, the Burkitt-Ford Library, which holds an extensive collection of public health books and journals. Students enrolled in the School of Public Health have access to over 20 networked computers with a wide range of word processing, spreadsheet and statistical software. In addition to core academic staff based at the main University campus and at the Western Clinical School, the school also includes associated research centres at Broken Hill, Moree and Lismore.

## Broad research areas

Biostatistics  
Epidemiology  
Health economics  
Health policy  
Health promotion  
Social and preventive research  
Qualitative research methods  
Tobacco control

## Recently published theses

**Thesis title:** *Lifestyle and metabolic determinants of endometrial cancer*

**Candidate:** Anne Elizabeth Cust

**Supervisor:** Professor Bruce Armstrong AM, School of Public Health, Camperdown campus

**Thesis title:** *Preventing the progression of renal damage and the development of adverse vascular events in chronic kidney disease*

**Candidate:** Giovanni Strippoli

**Supervisor:** Professor Jonathan Craig, School of Public Health

**Thesis title:** *How is Aboriginal health policy implemented?*

**Candidate:** Jane Elizabeth Lloyd

**Supervisor:** Ms Marilyn Wise, School of Public Health, Camperdown campus

## close up



## Becky Freeman, current PhD candidate

My PhD thesis focuses on whether the internet, particularly social networking and user-generated content websites like Facebook and YouTube, is being used to undermine tobacco control efforts. As the internet is a largely unregulated and globally accessible platform it has the potential to allow tobacco companies to skirt the advertising and marketing restrictions that exist in traditional media, and promote their products directly to young people. It is very exciting to investigate this new form of media as at present there is little knowledge about whether online marketing is weakening public health campaigns. My goal is that my research will provide evidence to strengthen legislative controls on tobacco advertising and marketing.

## For more information

See Research Supervisor Connect ([www.usyd.edu.au/research/opportunities](http://www.usyd.edu.au/research/opportunities)) or [www.health.usyd.edu.au](http://www.health.usyd.edu.au)

# Rural Health

The Broken Hill University Department of Rural Health is ideally placed for researchers interested in health issues facing rural and remote communities. The Centre for Remote Health Research aims to build and sustain capacity in greater western NSW for epidemiological research and surveillance, and other types of research relevant to population health and the delivery of health services in rural and remote settings.

## Broad research areas

Rural health workforce medical education  
 Development and evaluation of health service delivery system in rural and remote NSW  
 Health effects of lead and the Broken Hill Environmental Lead Program  
 Recruitment and retention of rural and remote health workers  
 Chronic disease in rural and remote areas  
 Rural mental health  
 Health issues in rural communities

## For more information

Associate Professor David Perkins, director of the Broken Hill Centre for Remote Health Research

Email: [daperkins@usyd.edu.au](mailto:daperkins@usyd.edu.au)

## close up

### Shaun Edwards, Master of Philosophy candidate

**Research is a part of Aboriginal culture; we like to gather information and analyse a situation, plan for the future through understanding. As a boy I was always hanging around the elders, learning from them, going to country with the elders and taking photos and taking notes.**

Also I studied art through school and did an Advanced Diploma in Visual Arts. To produce art that was from me as an Aboriginal person I had to know a lot about my people and culture. Part of that was finding that my people were suffering from a whole range of illnesses, which impacts on continuation of culture.

I started working with Queensland Health and realised that to make a difference I had to do some academic study that would help quantify and qualify the information. The first step was the Graduate Diploma of Indigenous Health Promotion, which I did in block mode at the University of Sydney. I took back the knowledge from that and put it into practice at grass roots. Then two years after I finished the graduate diploma I needed more study to take me to the next level in informing policy and system change.

For my Master of Philosophy in Public Health, I'm doing an empirical study looking at the impact that alcohol has had on my people, the Kokoberri who reside in Kowanyana, Cape York Peninsula. The health issues are getting worse; it's like watching my race dying. So I'm looking at the traditional

structure of maternal and child health and how that culture can be used (through the development of appropriate interventions) to reverse the negative impact of alcohol. Our elders are our professors; knowledge is passed on through ceremony and song as well as dialogue.

A lot of the elders aren't there any more and there's a lack of eligible candidates stepping up to take their place.

There's no system to support a generation of people with neurological damage and birth defects. Once it would have been cultural, with elders doing ceremony and people knowing their responsibilities. I've supported the community to set up a Baby Festival that is working with mums and babies to stop the intake of alcohol during pregnancy. We invited service providers and experts around Foetal Alcohol Spectrum Disorders, people talking about healthy families, about sexual health, and we have a baby competition looking at child development from one month to five years. A concert closes the festival – a band is a drawcard for young people. And for the opening, elders paint themselves up and they sing the baby story; this year was the first time it was sung in front of the community in my living memory.



## close up

### The Broken Hill University Department of Rural Health and Broken Hill Centre for Remote Health Research

**Rural and remote communities have health care needs which are particular to their geographic and social environment. In response, the Australian government launched the University Departments of Rural Health (UDRH) initiative in the late 1990s, setting up centres to conduct health education and research relevant to their rural and remote locations around Australia.**

The University of Sydney has two sites, both linked to the Faculty of Medicine's School of Public Health. The Northern Rivers UDRH was established in Lismore in 2001 and is run in collaboration with Southern Cross University. The Broken Hill University Department of Rural Health (BH UDRH), established in 1997, provides high quality support, education and training for rural and remote health workers.

Since 1997 the Broken Hill department has worked closely with the former Far West Area Health Service (now the Greater Western AHS), Maari Ma Health Aboriginal Corporation, the Royal Flying Doctor Service and general practitioners to provide a rural attachment program for medical, nursing and allied health students. It also provides support for Indigenous health workers, professional development support for local health professionals and research training for general practitioners and primary health care workers.

Together with the Population Health Division of GWAHS, the department operates the Broken Hill Centre for Remote Health Research, which was established in 2003. The centre's staff carry out research and surveillance programs relevant to population health and the delivery of health services in far western NSW. Led by Associate Professor David Perkins, it also aims to improve national expertise in rural and remote health research that will benefit all of Australia's rural populations.

The Broken Hill community and environment are themselves the subject of long-term studies. Silver, zinc and lead have been mined at Broken Hill since the 1880s. The lead smelter is no longer operating but mining continues, and environmental lead levels have significant health implications which are studied under the Broken Hill Environmental Lead Program (BH ELP), which began in the early 1990s.

The centre's researchers are examining the physiological and neurological effects of lead as well as public health aspects of the program such as behavioural intervention, public education and health promotion. As part of the program, local residents, particularly young and newborn children and pregnant women, are screened for blood lead levels, and receive medical treatment as needed.

The program is multidisciplinary, with environmental scientists planting suitable vegetation in affected areas to address local deficiencies. The BH UDRH also works with the local council and community in many areas, for example by addressing a decline in lead testing rates, which is perhaps an indication that 'familiarity breeds contempt' and health promotion messages are losing their effectiveness.

Other major research programs include the Australian Rural Mental Health Study, run in partnership with the Centre for Rural and Remote Mental Health based in Orange. One area under investigation is a causal link between drought-affected communities and individuals with depression.

The Workforce Study is part of the Faculty of Medicine's commitment to supporting health care workers in remote and rural communities. It aims to identify factors that have a negative impact on the recruitment and retention of medical and health workers in rural and remote areas, and focuses on their needs, whether originally from cities, country towns or remote areas. For residents of towns such as Bourke, Brewarrina and Broken Hill, the change from in-hospital training to university education for nurses has meant young people must relocate a greater distance for their training. Associate Professor Perkins hopes the research will develop strategies to help inspire school students to work in rural health, and improve support systems for early career health workers.



# Surgery



## Research facilities are available in each of the clinical schools.

The main areas are as follows:

**Central Clinical School:** transplantation surgery; vascular surgery; surgical oncology; melanoma surgery; ear, nose and throat surgery.

**Northern Clinical School:** oesophageal and upper gastrointestinal surgery; endocrine surgery; orthopaedic surgery and surgery of rheumatology; neurological surgery.

**Concord Clinical School:** vascular surgery; colorectal surgery; surgery of trauma.

**Western Clinical School:** upper gastrointestinal surgery, including liver and pancreatic studies and pancreatic transplantation; surgery of trauma; vascular surgery.

**The Children's Hospital at Westmead Clinical School:** cardiothoracic surgery.

**Nepean Clinical School:** upper gastrointestinal surgery, hepato-pancreatic biliary surgery; colorectal surgery; orthopaedic surgery.

## Broad research areas

Breast and endocrine surgery  
Cerebrovascular surgery  
Colorectal surgery  
Hand surgery  
Head and neck surgery  
Inflammatory bowel disease  
Melanoma  
Neurosurgery  
Otorhinolaryngology  
Paediatric surgery  
Pelvic floor disorders  
Rheumatology and orthopaedic surgery  
Surgery education  
Surgical oncology  
Transplantation surgery  
Upper gastrointestinal surgery  
Urology  
Values, ethics and the law in medicine  
Vascular surgery

## For more information

Associate Professor Ross Smith, postgraduate coordinator

Email: [rsmith@med.usyd.edu.au](mailto:rsmith@med.usyd.edu.au)

## Recently published theses

**Thesis title:** *Virtual reality simulators in surgical education: "Nintendoplasty"*

**Candidate:** Peter Hani Tawfik Cosman

**Supervisor:** Associate Professor John Andrew Cartmill, Nepean Clinical School, Nepean Hospital

**Thesis title:** *The cellular response to synthetic vascular graft material*

**Candidate:** Gabrielle Johanna Pennings

**Supervisor:** Dr Heather Medbury, Western Clinical School, Westmead Hospital

**Thesis title:** *Proteomic analysis of pancreatico-biliary malignancy*

**Candidate:** Christopher James Scarlett

**Supervisor:** Professor Ross Smith, Northern Clinical School, Royal North Shore Hospital

# How to apply

## Finding a research supervisor

Before you submit an application form you should:

- define your research topic
- ensure that appropriate research facilities are available
- find a research supervisor with expertise in the relevant field, who has space for a research student.

The Research Supervisor Connect website ([www.usyd.edu.au/research/opportunities](http://www.usyd.edu.au/research/opportunities)) can help you with these steps, as can direct contact with the postgraduate coordinator of the discipline in which you wish to research. See page 3 for more information about Research Supervisor Connect.

### Research Supervisor Connect

[www.usyd.edu.au/research/opportunities](http://www.usyd.edu.au/research/opportunities)



## English language requirements

If English is not your first language, you must demonstrate English-language proficiency before admission can be confirmed. Unless you can provide proof that your previous tertiary studies were conducted entirely in the medium of English, you must obtain one of the following language qualifications:

- International English Language Testing System (IELTS) 6.5 with no band less than 6.0
- Test of English as a Foreign Language (TOEFL) 577 plus TWE 4.5
- Computer-based TOEFL 233 plus Essay Rating 4.5

Please refer to [www.foh.usyd.edu.au/postgrad](http://www.foh.usyd.edu.au/postgrad) for full details.

## Local applicants

If you are an Australian or New Zealand citizen or an Australian permanent resident you are considered to be a local applicant and should complete a current research application form and send it with the appropriate documentation to:

Postgraduate Student Administration Unit  
Room 208D  
Edward Ford Building (A27)  
The University of Sydney  
NSW 2006 Australia

For detailed information regarding the application, admission and enrolment procedures, including the research application form for domestic students and a list of essential documentation for applications, see the University's website: [www.foh.usyd.edu.au/postgrad/future/local\\_apply.php](http://www.foh.usyd.edu.au/postgrad/future/local_apply.php).

## When to apply

Applications to research degrees are accepted all year round. There are two main enrolment and induction periods, in February and July.

**Applications must be received by 31 January for the February intake and 31 May for the July intake.**

## International students

If you are not an Australian or New Zealand citizen or an Australian permanent resident, you are considered to be an international applicant and should complete a current international research application form and send it with the appropriate documentation to:

The International Office  
Services Building (G12)  
The University of Sydney  
NSW 2006 Australia

For detailed information regarding the application, admission and enrolment process for international students, see the University's website:

[www.foh.usyd.edu.au/postgrad/future/int\\_apply.php](http://www.foh.usyd.edu.au/postgrad/future/int_apply.php).

## When to apply

Applications to research degrees are accepted all year round. There are two main enrolment and induction periods, in February and July. **Applications must be received by 31 October for the February intake and 30 April for the July intake.**



# Fees and scholarships



## For local students

The federal government-funded Research Training Scheme (RTS) covers tuition fees for all Australian or New Zealand citizens and permanent Australian residents, for four full-time or eight part-time years for doctorate candidates, and two full-time or four part-time years for master's candidates. In effect, as long as local students complete their research degrees within the specified periods, they are not required to pay tuition fees.

For detailed information regarding fees and scholarships for local students, see [www.foh.usyd.edu.au/postgrad/future/local\\_costs.php](http://www.foh.usyd.edu.au/postgrad/future/local_costs.php).

## For international students

For detailed information regarding fees and scholarships for international students, see [www.foh.usyd.edu.au/postgrad/future/int\\_costs.php](http://www.foh.usyd.edu.au/postgrad/future/int_costs.php).

## Summer scholarships

Summer Vacation Research Scholarships offer a unique opportunity for local undergraduate students to obtain experience in research. They provide a fantastic insight into the research process and give students the opportunity to find out whether research is for them.

The scholarships offer students the experience of working with well-established researchers in high-quality medical research facilities. For detailed information visit the summer scholarships website: [www.medfac.usyd.edu.au/research/srs/index.php](http://www.medfac.usyd.edu.au/research/srs/index.php).

## For more information

### General enquiries

Postgraduate Student Administration Unit  
Room 208D  
Edward Ford Building (A27)  
Fisher Road  
The University of Sydney  
NSW 2006 Australia

Phone: +61 2 9351 3132

Fax: +61 2 9351 8529

Email: [info@med.usyd.edu.au](mailto:info@med.usyd.edu.au)

Website: [www.foh.usyd.edu.au/postgrad](http://www.foh.usyd.edu.au/postgrad)

### Research units

[www.medfac.usyd.edu.au/research/units/index.php](http://www.medfac.usyd.edu.au/research/units/index.php)

### The Faculty of Medicine

[www.medfac.usyd.edu](http://www.medfac.usyd.edu)

## close up

**Sharon Bonython-Ericson – Master of Philosophy student, Fulbright scholar**

**The subject of my research is 'quality use of medicine', QUM, in remote and very remote Aboriginal and Torres Strait Islander communities. My study focuses on barriers parents and carers face in administering medications, particularly antibiotics. The data come from two case studies: a pharmacy in Thursday Island in the Torres Strait and one in Yarrabah, a town just south of Cairns.**

One of the difficulties parents and carers face is that English is often their second or third language. There are many difficulties understanding the terminology relating how to take medication correctly. This can be a problem not only for Aboriginal and Torres Strait Islander people but also for the general population. Pharmacists receive prescriptions typically written in English and Latin. To translate the instruction into the Torres Strait languages or the Cape York languages is important for the consumers. The pharmacy in the Thursday Island has three pharmacists who don't speak any of the local languages, and twelve Torres Strait Islander workers who I see as cultural health interpreters. The local staff translate instructions from English into Kalaw Lagaw or Creole.

This study is important in collecting insights gained by pharmacists over the years on whether parents and carers understand the directions.

Good public health is also about understanding and the application process of medications.

I grew up in Harvey's Creek, a small town in North Queensland; my family is both Torres Strait Islander and Aboriginal. Our mother was a trained nurse who enforced public health practices in our home and I was interested in public health from an early age. Tropical rainforest was our backyard; we made up insect repellent for mosquitoes and sandflies. During the humidity and heat of the rainy season, we learned good health practices like taking care of cuts straight away.

At school I was good at maths and science, but learning English was difficult. My research supervisor Associate Professor Kate Conigrave invested personally in my ability. Finding common ground was really important for how I learn. Kate and I share a love of music; she plays violin and I play the cello.

Good educators in our community play critical roles in our educational outcomes at all levels. It's not just about gaining information; equally important is understanding and the ability to transfer knowledge. Tertiary education is not for all, but everyone should have the opportunity, even when we live in remote Aboriginal and Torres Strait Islander communities.

Allowing individuals and communities to develop creative academic thought on their own land is

good medicine. But often you need to travel for postgraduate study. Developing block-mode learning options for Aboriginal and Torres Strait Islander people is one great way to deliver education to communities.

One of the biggest challenges in studying at the University of Sydney was leaving my family and the beautiful surroundings. I was very fortunate in gaining a scholarship, which made the decision to move to Sydney easier. I'm currently a resident of the Women's College which has become my community.

On the upside, being on campus full-time you get exposure to a whole group of people that you wouldn't otherwise. The lecturers are all approachable, always encouraging us. Professor Bruce Armstrong is a hero of mine which I aspire to. Having the opportunity to talk to him freely about a range of topics and hearing about his experience has been great.

At the end of 2008 as part of my Fulbright scholarship I'm heading to the United States to find out what QUM processes are being used in First Nation health. It'll be exciting to have dialogue with them and share best practices.

I recommend to women, young men, elders, to get involved in education and research. It's important for Torres Strait Islander and Aboriginal people to build themselves a research army – and I'm one small member of it.





**The  
University  
of Sydney**

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# Medicine

postgraduate research and honours  
at the University of Sydney

Our postgraduate website  
[www.foh.usyd.edu.au/postgrad](http://www.foh.usyd.edu.au/postgrad)  
provides detailed information on all  
programs listed in this brochure including  
fees, subject descriptions and entry  
criteria.

#### For more information

Postgraduate Student  
Administration Unit  
Phone: +61 2 9351 3132  
Fax: +61 2 9351 8529  
Email: [info@med.usyd.edu.au](mailto:info@med.usyd.edu.au)  
Web: [www.medfac.usyd.edu.au](http://www.medfac.usyd.edu.au)



This brochure was revised by the Faculty of Medicine in August 2008.

Information was correct at the time of publication.

See [www.medfac.usyd.edu.au](http://www.medfac.usyd.edu.au) and [www.foh.usyd.edu.au/postgrad](http://www.foh.usyd.edu.au/postgrad) for the most up-to-date information.

Printed on Monza. FSC certified 55 per cent recycled, 45 per cent plantation pulp.

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CRICOS provider 00026A  
08/1577