

HEALTH SCIENCES

CONTACT DETAILS

Executive Dean: Professor Justin Beilby

Manager, Research Secretariat: Dr Christiane Niess

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The University of Adelaide's Faculty of Health Sciences has a long and distinguished history of outstanding research.

Situated in the heart of Adelaide, the Faculty forms part of a thriving health sciences research precinct. It has a particularly close relationship with the South Australian teaching hospitals and biomedical research institutes, opening up a wide range of research opportunities for postgraduate students in clinical settings.

The infrastructure, specialised facilities and leading-edge technologies create an environment in which our internationally recognised scientists and clinicians will advance both health research and patient care.

We encourage the development of research teams and groups within and across disciplines at all levels and with affiliated hospitals; collaborations with other institutions and faculties nationally and internationally are strongly supported. Research is an integral part of the Faculty and covers a wide range of activities undertaken by University employees, clinical and affiliate titleholders, visiting research staff and higher degree students.

The Faculty of Health Sciences focuses on specific areas of research strengths. This focused approach enables the Faculty to serve community needs, develop its international stature and take advantage of new funding opportunities.

New Centres have been established to support the vision and mission of the University and the Faculty of Health Sciences. They will help to maintain our competitive edge as a research-intensive Faculty and provide new facilities for clinical, research and teaching activities. In the future this will enhance the economic and health impact of medical research in Adelaide.

DENTISTRY

Dean and Head: Professor Johann de Vries

Postgraduate enquiries: Dr Janet Fuss

Phone: 61 8 8303 4052 **Fax:** 61 8 8303 3444

Email: janet.fuss@adelaide.edu.au

Web: www.health.adelaide.edu.au/dentistry/

Research in the School of Dentistry has a long and distinguished history at the University of Adelaide.

It is home to the Australian Research Centre for Population Oral Health (ARCPOH) and the Colgate Clinical Dental Research Centre, which is the most advanced dental research centre in the southern hemisphere.

The School has a broad scope of dental research, including child and geriatric dental health, dental services research and fluoride studies.

Research Interests

- Craniofacial biology
- Dental education
- Forensic odontology



- Indigenous oral health
- Oral and maxillofacial surgery
- Oral microbiology and immunology
- Oral pathology
- Orthodontics
- Paediatric dentistry
- Periodontics
- Restorative dentistry.

MEDICAL SCIENCES

Head: Professor Robert Vink
Postgraduate enquiries: Assoc Professor Rod Irvine
Phone: 61 8 8303 5976 **Fax:** 61 8 8224 0685
Email: rod.irvine@adelaide.edu.au
Web: www.health.adelaide.edu.au/school_medsci/

The School offers a dynamic research-intensive environment that nurtures the development of our students to their full potential, and fosters excellence in interdisciplinary research.

The School of Medical Sciences encompasses the disciplines of Anatomical Sciences, Pathology and Pharmacology. Together, these disciplines provide the foundation for careers in medicine, dentistry and the allied health sciences.

ANATOMICAL SCIENCES

Phone: 61 8 8303 5488 **Fax:** 61 8 8303 4398
Email: bruce.firth@adelaide.edu.au
Web: www.adelaide.edu.au/health/anat/

Research Interests

- Biological and forensic anthropology
- Cell biology of sperm, eggs and fertilisation in mammals
- Connective tissue research
- Demyelination and degeneration in the nervous system
- Dynamics of germ cell production in mammals
- Growth and regulation of development of the gastrointestinal tract
- Human body size and shape
- Human growth and physical development
- Pineal complex and circadian biology and thermoregulation in reptiles
- The blood brain barrier in traumatic brain injury.

PATHOLOGY

Phone: 61 8 8303 3180 **Fax:** 61 8 8303 4408
Email: david.haynes@adelaide.edu.au
Web: www.health.adelaide.edu.au/pathology/

Research Interests

- Bone and joint research
- Bone loss in malignancy
- Brain oedema
- Connective tissue pathology and physiology
- Inflammation
- Neuropathology
- Normal development and function of tissues and cells
- Osteoporosis
- Parkinson's disease
- Spinal research
- Stroke
- Traumatic brain injury.

PHARMACOLOGY

Phone: 61 8 8303 5976 **Fax:** 61 8 8224 0685
Email: rod.irvine@adelaide.edu.au
Web: www.health.adelaide.edu.au/pharmacology

Research Interests

- Clinical and experimental pharmacology of drugs of dependence and abuse
- Clinical trials of drugs to treat heroin and methamphetamine dependence
- Drug metabolism, transport and pharmacokinetics
- Gastrointestinal transport mechanisms
- Molecular and clinical pharmacology
- Pharmacogenetics and pharmacogenomics
- Pharmacology of pain management
- Substituted amphetamine neurotoxicity
- Somatic and visceral sensory and motor function in health and disease.

MEDICINE

Head: Professor Gary Wittert
Postgraduate enquiries: Assoc Professor David Callen
Phone: 61 8 8222 3145 **Fax:** 61 8 8222 3217
Email: david.callen@imvs.sa.gov.au
Web: www.health.adelaide.edu.au/school_medicine/

The School of Medicine has broad ranging functions in undergraduate and postgraduate

teaching, excellent research opportunities and clinical service and management. The School consists of five Disciplines which are involved in basic science research, clinical research and epidemiological presence.

Research laboratories are located within the major teaching hospitals of the University of Adelaide, the Hanson Institute, and Institute of Medical and Veterinary Science.

ANAESTHESIA AND INTENSIVE CARE

Phone: 61 8 8222 4000 **Fax:** 61 8 8222 5887
Email: guy.ludbrook@adelaide.gov.au
Web: www.anaesthesia.adelaide.edu.au/

Research Interests

- Acute pain
- Equipment standards
- GABAB pharmacology
- Incident monitoring
- Neuropharmacology
- Patient safety
- Pharmacokinetics and pharmacodynamics.

MEDICINE (ROYAL ADELAIDE HOSPITAL, IMVS/HANSON INSTITUTE)

Phone: 61 8 8222 3145 **Fax:** 61 8 8222 3217
Email: david.callen@imvs.sa.gov.au

Research Interests

- Ageing
- Appetite, nutrition, obesity and diabetes mellitus
- Bone loss in malignancy
- Cancer immunology
- Cancer research (including internationally recognised expertise in breast and prostate cancer)
- Cardiovascular research
- Functional neuroscience of human movement, cognition and behaviour
- Gastrointestinal motor function
- Haemopoietic stem cell transplantation including cord blood transplantation
- Herbal medicine
- Leukaemia biology and targeted drug development
- Men's health, androgens, androgen receptors and prostate disease



- Mesenchymal stem cell biology and tissue regeneration
- Metabolic bone and joint disease
- Mucositis research
- Nerve gut research
- Nutrition in critical illness
- Programmed cell death
- Public health
- Respiratory physiology
- Vitamin D.

MEDICINE (QUEEN ELIZABETH HOSPITAL)

Email: jenny.kennedy@nwahs.sa.gov.au

Research Interests

- Basic neuroscience in genetics
- Basic neuroscience in genetics of stroke
- Cell physiology and molecular science in nerve, gut, kidney, cardiac, synovial and respiratory tissues
- Clinical science in gastroenterology, geriatrics, cardiology, rheumatology, neurology, respiratory and renal medicine
- Population health and epidemiology of chronic disease
- Stem cell research.

OPHTHALMOLOGY & VISUAL SCIENCES

Phone: 61 8 8222 2729 Fax: 61 8 8222 2741

Email: robert.casson@adelaide.edu.au

Research Interests

- Analysis of chromosomal translocations in ocular-adnexal MALT lymphoma
- Anterior capsule phimosis with foldable and rollable IOL's
- Anterior segment OCT examining effective lens position of ThinOptx IOL's following biaxial phacoemulsification
- Aspects of optic nerve pathology after retinal excitotoxic injury
- Astigmatism
- Detection of bacterial and viral DNA in ocular-adnexal lymphoma
- Early molecular events after neuronal injury
- Establishment of optimal choice of type of aspheric IOL to match corneal asphericity
- Examination of the effect of smoking on the outcome of LASIK and PRK
- Glaucoma and retina diseases
- Immunohistochemistry of normal lacrimal sac and tumours of lacrimal sac
- Indigenous eye health
- Intraocular lens implant

- Optic nerve pathology in experimental glaucoma
- Osteopontin in the retina
- Phacotrabeculectomy using a biaxial phacoemulsification technique
- Prevalence and causes of visual impairment
- Prevalence and risk factors for cataract and retinal disease in central Sri Lanka
- Proliferative markers in basal cell carcinoma and in orbital cavernous haemangioma
- Risk factors of common age-related eye diseases
- The effect of ultra-short pulsed laser on trabecular meshwork cells.

ORTHOPAEDICS AND TRAUMA

Phone: 61 8 8222 5760 Fax: 61 8 8232 3065

Email: oksana.holubowycz@adelaide.edu.au

Web: www.health.adelaide.edu.au/ot/

Research Interests

- Bone cancers
- Bone cell biology
- Bone imaging
- Bone structure and function

- Hand and upper limb
- Hip reconstruction
- Joint disorders
- Joint replacement surgery
- Knee and sports injury
- Musculoskeletal disease, trauma and rehabilitation
- Pathological bone loss
- Spinal trauma and disease.

PSYCHIATRY

Phone: 61 8 8222 5141 **Fax:** 61 8 8222 2865
Email: helen.winefield@adelaide.edu.au
Web: www.health.adelaide.edu.au/psychiatry/

Research Interests

- Anxiety disorders
- Child and adolescent health and illness
- Dementia
- Depression
- Eating disorders
- History of psychiatry
- Medical education
- Post-traumatic stress disorder
- Psychology of health and health care
- Quality of life
- Schizophrenia and its socio-cultural aspects
- Suicidal behaviour.

SURGERY (ROYAL ADELAIDE HOSPITAL)

Phone: 61 8 8222 415 **Fax:** 61 8 8222 5896
Email: neville.deyoung@adelaide.edu.au
Web: www.health.adelaide.edu.au/surgery/

Research Interests

- Gastroesophageal reflux disease
- Head injury neurotrauma, spinal cord trauma
- Medical education
- Melanoma vaccine therapy
- Oesophageal cancer and Barrett's oesophagus treatment and gene expression
- Operative complications and risks
- Sentinel lymph node surgery in breast cancer and melanoma treatment
- The immune system and tumour growth
- Tumour immunology
- Tumour antigens and dendritic cells.

SURGERY (QUEEN ELIZABETH HOSPITAL)

Phone: 61 8 8222 7541 **Fax:** 61 8 8222 6028
Email: prue.cowled@adelaide.edu.au
Web: www.health.adelaide.edu.au/surgery/

Research Interests

- Biliary surgery
- Colon cancer
- Colorectal surgery

- Haemodynamics of incompetent calf perforating veins
- Health technology assessment in surgery
- Inflammatory bowel disease
- Liver surgery
- Minimally invasive surgical techniques.

PAEDIATRICS AND REPRODUCTIVE HEALTH

Head: Professor Julie Owens
Postgraduate enquiries:
 Assoc Professor David Kennaway
Phone: 61 8 8303 4090 **Fax:** 61 8 8222 6028
Email: david.kennaway@adelaide.edu.au
Web: www.health.adelaide.edu.au/school_paedrepro/

The School of Paediatrics and Reproductive Health comprises the Discipline of Paediatrics and the Discipline of Obstetrics and Gynaecology. The amalgamation of these two Disciplines creates a School that will lead Child Health and Reproductive Health in the areas of research and research training as well as translation of research into health practice.

OBSTETRICS AND GYNAECOLOGY

Phone: 61 8 8303 4090 **Fax:** 61 8 8222 6028
Email: david.kennaway@adelaide.edu.au
Web: www.health.adelaide.edu.au/og/

Research Interests

- Advanced reproductive technology
- Cerebral palsy
- Circadian physiology

Cadence Minge PhD Student, Obstetrics & Gynaecology



The Young Investigator Award (YIA) is an initiative of the Children, Women's Health Services and the Faculty of Health Sciences. It rewards excellence in SA's young researchers in both science and their ability to communicate and 'sell' their research. The 2007 winner was Cadence Minge, for her study in ovarian malfunction caused by a high-fat diet that is reversed with short-term treatment with the anti-diabetic drug Rosiglitazone.

"I was fortunate to be awarded this prize for my research. By rewarding excellence in South Australia's young researchers, and providing training

in how to effectively communicate their science, the Faculty of Health Sciences is ensuring graduates are confident and equipped to sell the messages of their success to the world!

"My time as a postgraduate student at the University of Adelaide has been a tremendously rewarding one, in which I have been continuously encouraged to participate in awards, and numerous training programs. I am confident that I can expand on these valuable experiences as I start postdoctoral work."

- Developmental neuromotor physiology
- Early life programming of health and disease
- Embryology
- Health and social outcomes in reproduction
- Human and animal reproductive biotechnology and stem cells
- Maternal and fetal biology and medicine
- Maternal-fetal physiology
- Menopause
- Nutrition, environment and reproduction
- Oocyte and early embryo development
- Ovarian and follicular function
- Perinatology
- Reproductive immunology
- Uterine biology, implantation and placental development.

PAEDIATRICS

Phone: 61 8 8161 6562 **Fax:** 61 8 8161 7031
Email: simon.barry@adelaide.edu.au
Web: www.health.adelaide.edu.au/paediatrics/

Research Interests

- Allergy
- Cellular immunology (cancer biology, immune system development, cell signalling)
- Child and adolescent health services research
- Child and adolescent mental health

- Child and adolescent public health
- Child health and nutrition
- Complex carbohydrates and lysosomal diseases
- Consumer involvement in health care curriculum development, especially in child health
- Diabetes and endocrinology in children
- Genetics and molecular genetics
- Genetic medicine (lysosomal diseases, neurogenetics)
- Immunology
- Paediatric gastroenterology and respiratory medicine
- Rheumatology and vaccinology
- Tissue growth and repair (bone, gut and skin).

POPULATION HEALTH AND CLINICAL PRACTICE

Head: Professor Konrad Jamrozik
Postgraduate enquiries: Associate Professor Annette Braunack-Mayer
Phone: 61 8 8303 3569 **Fax:** 61 8 8303 3511
Email: annette.braunackmayer@adelaide.edu.au
Web: www.health.adelaide.edu.au/school_phcp/

The School of Population Health and Clinical Practice brings together academic disciplines concerned with preventing disease and promoting health in populations, provision of health services which are the first point of contact for individuals and families in the community, health services generally and in

rural and remote localities, nursing in all its practice specialities, and indigenous health.

CENTRE FOR MILITARY & VETERANS' HEALTH

Phone: 61 8 8303 5200 **Fax:** 61 8 8303 5368
Email: alexander.mcfarlane@adelaide.edu.au
Web: www.health.adelaide.edu.au/school_phcp/cmvh/

The Centre for Military and Veterans' Health (CMVH) is an internationally-unique, academic community and military partnership which is dedicated to innovatively seeking solutions to military and veterans' health issues through research, post-graduate education and professional development, e-Health and public debate.

Research Interests:

- Long term effects of lead exposure on cognitive ability
- Mental health outcomes of deployed personnel
- Post-traumatic stress disorder

GENERAL PRACTICE

Phone: 61 8 8303 3569 **Fax:** 61 8 8303 3511
Email: annette.braunackmayer@adelaide.edu.au
Web: www.adelaide.edu.au/health/gp/

Research Interests

- Grief and palliative care
- Health services research
- Mental health
- Multi-method research using qualitative interpretive methods and quantitative techniques
- Point of care testing in general practice
- Primary health care practice in rural and remote areas, and international health
- Psychological aspects of cancer screening
- Respiratory health.

NURSING

Phone: 61 8 8303 4878 **Fax:** 61 8 8303 3594
Email: rick.wiechula@adelaide.edu.au
Web: www.health.adelaide.edu.au/nursing/

Research Interests

- Change management and clinical audit
- Clinical research
- Design and analysis of research studies



Faculty of Health Sciences Research Expo Winners



L to R: Alkis, Eric, Joanne, Jenny and Eleanor

In October 2007, the Faculty of Health Sciences held its first Research Expo - 63 PhD students across 15 disciplines presented their research results on 72 posters in Bonython Hall. The winners for the best poster presentation were:

Alkis Psaltis (Discipline of Medicine - Queen Elizabeth Hospital): An animal model for the study of biofilms in rhinosinusitis

Eric Smith (Discipline of Surgery - Royal Adelaide Hospital): DNA methylation in oesophageal disease

Joanne Collins (School of Psychology): Barriers to seeking help for mental health issues in rural areas: A qualitative investigation

Jenny Myers (Discipline of Surgery - Royal Adelaide Hospital): Insights into post operative dysphagia following total and partial laparoscopic fundoplication

Eleanor Need (Discipline of Medicine - Royal Adelaide Hospital): Bioassay measurements of serum androgens in the Florey Adelaide Male aging study reveals that mammalian cell culture-based bioassays measure total T.

- Embedding evidence in health systems and decision support systems
- Evidence review, synthesis, transfer and utilisation/implementation
- Health services research.

PUBLIC HEALTH

Phone: 61 8 8303 3569 **Fax:** 61 8 8303 3511
Email: annette.braunackmayer@adelaide.edu.au
Web: www.health.adelaide.edu.au/publichealth/

Research Interests

- Clinical trials methodology
- Communicable diseases
- Epidemiology
- Ethics in public health
- Health economics
- Health services research
- Health technology assessment
- Indigenous health
- Occupational health and safety
- Public policy
- Research design and statistical analysis.

RURAL HEALTH

Phone: 61 8 8303 6030 **Fax:** 61 8 8683 2095
Email: jonathan.newbury@adelaide.edu.au
Web: www.adelaide.edu.au/health/gp/rural/

Research Interests

- Community based studies to counter overweight and obesity
- Community development in rural health workforce
- Epidemiology of osteoporosis and lung disease in Aboriginal communities
- Indigenous health.

MEDICINE, LEARNING AND TEACHING UNIT (MLTU)

Phone: 61 8 8303 4696 **Fax:** 61 8 8303 6225
Email: anne.tonkin@adelaide.edu.au
Web: <http://curriculum.adelaide.edu.au/index.asp>

The Medicine, Learning and Teaching Unit has research interests in student learning in the context of an integrated problem-based learning curriculum, clinical teaching, curriculum design and implementation, evaluation and assessment.

Research Interests

- Curriculum implementation
- Development of reasoning ability, assessment of performance in a clinical setting
- Role of language in learning in medicine.

PSYCHOLOGY

Head: Professor Deborah Turnbull
Postgraduate enquiries: Professor Martha Augoustinos
Phone: 61 8 8303 5693 **Fax:** 61 8 8303 3770
Email: martha.augoustinos@adelaide.edu.au
Web: www.adelaide.edu.au/psychology/

Staff and students within the School of Psychology are engaged in research fields of cognition, perception, neuropsychology, and individual differences. There is also a strong emphasis on applied research engaging with social and organisational issues. Further interests focus on human health and wellbeing through the lifespan and the evaluation of interventions to promote health and wellbeing, and the health policy implications of all.

Research Interests

- Assessment and management of pain in children
- Categorisation and knowledge representation

- Changes in information processing associated with ageing
- Clinical and health psychology
- Cognitive development in children
- Cognitive psychology
- Cultural factors influencing organisational behaviour and work
- Discourse and rhetoric
- Early intervention and prevention of mental health problems
- Factors influencing gambling behaviour
- Forgiveness and social justice
- Health services evaluation
- Human decision-making
- Human performance under stress
- Individual differences in personality
- Intellectual disability - epidemiology and psychopathology
- Language processing
- Memory
- Needs assessment and support services for people with disabilities
- Neuropsychological investigations of acquired brain damage and impairments associated with ageing
- Occupational stress
- Optimising the human-machine interface
- Perceptual motor organisation
- Psychoneuroimmunology
- Psychosocial aspects of chronic illness
- Social and organisational psychology
- Social representations theory
- Sports psychology
- Theories of intelligence and its measurement
- Unemployment and health.