

Adelaidean

NEWS FROM THE UNIVERSITY OF ADELAIDE



Biofuels vehicles are here!

■ Engineering

Robot spiders, biodiesel motorbikes, hypersonic jets, and a human cough detector – these are among the dozens of amazing projects that some of the University of Adelaide’s brightest young minds will put on display to the public this month.

The annual fourth-year Mechanical Engineering Project Exhibition will be held at the University on Friday 27 October, giving students the chance to display their hard work, technical expertise and creativity to a wide audience.

Many of these projects have industry and government sponsors.

“The exhibition is a showcase of talent that provides final-year students with direct contact with industry, resulting in valuable experience and future contacts as well as giving industry and the general public an insight into what our graduates are capable of,” said the Head of the School of Mechanical Engineering, Professor Colin Hansen.

“Many employers have commented that they see the involvement with the industry-sponsored projects as equivalent to many months of work experience. This gives the students an additional advantage when entering the graduate employment market,” he said.

This year, many student projects have addressed the issue of increases in the cost of petroleum by looking at alternative and sustainable fuels for transport. These projects include:

Biodiesel Motorbike

The primary aim of this project is to create a commercially viable biodiesel motorbike to demonstrate the versatility of biodiesel compatible engines. Throughout 2007 the design will be refined so that the bike can successfully compete in the 2007 Panasonic World Solar Challenge (WSC) Greenfleet Class, to help demonstrate to a worldwide audience its full potential.

Bio-Oil Motor Trike

The objective of this project is to design and build a motor trike that can run solely on vegetable oil. The bio-oil trike will be entered into the Greenfleet technology class of the World Solar Challenge in 2007, which provides a public forum to demonstrate fuel-efficient technology and low carbon fuels.

story continued on page 12

Mechanical Engineering student Heath McBain on the “Bio Bike”, the biodiesel motorbike designed and developed at the University of Adelaide. Heath, who is also studying for a Finance degree, is one of nine Mechanical Engineering students to work on the bike as part of their fourth-year project.

Photo by David Ellis

October 2006
Volume 15 | Number 8

inside this issue



4 The great wasp hunt is on



5 Spy studies added to Masters degree



8 Coorong champions lead the way



15 Making a real difference



Adelaidean

Adelaidean has a readership of more than 30,000 per month – 12,000 in print and 18,000 online

Editor:

David Ellis

Design:

Chris Tonkin

Writers:

Candy Gibson
Robyn Mills

Contributors:

Helen Simpson
Lara Guineay
Craig Dreyer

Printed by:

Lane Print Group
Tel: +61 8 8179 9900
Fax: +61 8 8376 1044
Email: lane@laneprint.com.au
Web: www.laneprint.com.au

Distribution:

Lane Print Group
Passing Out Distribution Co.

Advertising:

Max Hicks, Radio Adelaide
Tel: +61 8 8303 5000
Fax: +61 8 8303 4374
Email: max.hicks@adelaide.edu.au

Coming Events:

All coming events must be University of Adelaide related and of public interest. Please send details of events via email to: david.ellis@adelaide.edu.au

Deadline for next issue:

Monday, October 9, 2006

Room G07 Mitchell Building,
South Australia, 5005.

Tel: +61 8 8303 5414
Fax: +61 8 8303 4829
Email: david.ellis@adelaide.edu.au

www.adelaide.edu.au/adelaidean

Material may be reproduced without permission but acknowledgement must be given to the Adelaidean.

Registered by Australia Post No 565001/00046

Adelaidean is produced on paper made from renewable resources and printed with vegetable-based inks.



From the Vice-Chancellor

Creating a better world and building a better Australia should be the aim of everyone who works and studies at the University of Adelaide.

That might sound like a simple statement, but having just attended the 2006 Australian Universities International Alumni Convention (AUIAC) in Brisbane, I am reminded that education, shared goals and international friendships must be at the heart of what we are trying to achieve.

One of our great graduates, the Chief Minister of Sarawak, the Right Honourable Pehin Sri Dr Haji Abdul Taib Mahmud, is a Patron of the AUIAC and has been instrumental in bringing together international alumni of all Australian universities for this bi-annual conference.

I'm a strong supporter of the conference because it is a wonderful reminder of what kind of impact our universities are having on the world, through our graduates. The sessions at these events are inspirational and revitalising. As a Vice-Chancellor, this is a perfect opportunity to learn more about the excellent work being done by our graduates, and how they can work collectively to lead the way in so many fields.

Appropriately, the theme for AUIAC this year was "Creating A Better World: Australian Universities' Alumni Working Together". The sessions dealt with a vast number of issues, from world economies to the knowledge economy, from sustainable development to health, well-being, and the arts. There was even a session about better understanding and motivating Generation Y – I hope I was paying enough attention!

But the sessions that resonated with me the most were those dealing with creating a better world through peace, human security, communication and diplomacy. With the world constantly in upheaval, these sessions took on a special significance. It is an important question we must all ask ourselves: how can we ever hope to achieve a sustainable peace? The answer may lie in many places, but it was obvious that conferences such as AUIAC are an extremely important starting point.

That's because the AUIAC conference continues to show leadership on these issues. It also brings together many leaders and influential people who have common goals. And what has brought this into being? A simple connection – their experience of higher education in Australia.

Education has the ability to open minds and broaden horizons. It really can bring the world closer together.

The University of Adelaide is committed to furthering our international links through education. Recently we announced that the University had recorded a 20% growth in commencing international student enrolments for Semester 2 this year, compared with the same intake in 2005.

That increase means that the University's strategic target for international students by 2008 has been met two years ahead of schedule. This augurs well for the achievement of the State's Strategic Plan objective to double South Australia's share of overseas students in Australia by 2013.

It is especially pleasing to hear of the success of our recent International Open Days in Malaysia and Singapore, with strong interest in many of our academic programs from potential students in those regions.

The University of Adelaide has been educating international students for more than 50 years. We count many of them among our greatest alumni. I'm glad to see the trend continuing stronger than ever. It means that with every year, we increase our opportunities to work together to create a better world.

JAMES A. McWha
Vice-Chancellor

2500 students to benefit from 10-year deal

Partnership

A joint venture between the University of Adelaide and University Senior College (USC) has been renewed for a 10-year period.

USC Council Chair Dr Judith Brine and Vice-Chancellor Professor James McWha signed the 10-year joint venture agreement at the University of Adelaide recently.

The College is an academic, co-educational, independent school offering Year 11 and 12 students a challenging educational program, which prepares them for a smoother transition to university.

Since 2002, the University and the USC have worked in partnership, offering senior students a program unhindered by the shackles of normal school routines.

Experienced specialist teachers use the University's facilities to present courses for 100 international and 300 local students from 75 different schools.

USC Principal Bob Holloway said the concept had been a "resounding success," with preliminary data indicating that USC graduates had experienced a smooth transition to tertiary studies.

"It is widely recognised that almost 30% of undergraduates either drop out or change courses during their first year. The USC experience is structured to ensure students make more informed choices and are better prepared to cope with the demands of the independent learning style at university," Mr Holloway said.

During the next decade, more than 2500 young scholars will graduate from Year 12 at USC, of whom 98% will proceed to tertiary institutions, most to the University of Adelaide.



Dr Judith Brine and Vice-Chancellor Professor James McWha
Story and photo by Candy Gibson



Uni makes impact on marketing awards

Achievement

The University of Adelaide has dominated this year's awards for marketing excellence in South Australia.

The University has won three out of the six State awards run by the Australian Marketing Institute (AMI), and was recognised in the categories of Corporate Social Responsibility, Education, and Social Marketing.

Adelaide's highly successful Life Impact campaign and the marketing for its Open Day in 2005 attracted the awards.

In the field of Corporate Social Responsibility, the University was awarded for using its Life Impact brand marketing campaign to raise the awareness of and participation in higher education in South Australia. In the Social Marketing category, the University was recognised for turning the annual Open Day into a community event with real cultural and social impact, rather than just an event focused on attracting more students.

"The University of Adelaide has achieved outstanding results with its marketing campaigns, which have used the stories of students and graduates of the University to

engage with the community and, in turn, encourage the community to engage with the University," said AMI State President Adrian Earl.

Vice-Chancellor Professor James McWha said the awards were further proof that the University of Adelaide was making an impact in the community.

"I'm especially pleased at the results for Corporate Social Responsibility and Social Marketing. I have said before that the aim of our marketing is not just to increase the student population at the University of Adelaide but to achieve a long-term gain for the State, and this aim

Retrieval nurse Tara McCracken is one of the graduates featured in the University of Adelaide's award-winning Life Impact campaign

Photo by Mark Spaven

has now been recognised with an award," he said.

"The award for our Open Day shows just how important such events are. Open Day provides our University with yet another opportunity to be recognised as a key cultural icon in South Australia, not just an education facility."

Story by David Ellis

2006 Desert Knowledge Symposium and Business Showcase

Alice Springs Convention Centre Northern Territory, Australia

November 1-3

Desert 2006

Global Desert Opportunities



A rare opportunity to hear how research and business innovation are contributing to the sustainability of desert communities around the world

www.desertknowledge.com.au/symposium Telephone: +61 8 8941 0388 Email: dcem@desliens.com.au



Ceratobaeus sp. (Scelionidae), actual size 1.8mm



Inostemma sp. (Platygastridae), actual size 1mm



Odontacolus sp. (Scelionidae), actual size 1.2mm



Baeus sp. (Scelionidae), actual size 0.8mm



Idris sp. (Scelionidae), actual size 1.2mm



Trimorus sp. (Scelionidae), actual size 0.8mm



Synopeas sp. (Platygastridae), actual size 1.5mm

These are just some of the thousands of parasitic wasps that make up the Platygastroidea family

Photos by Dr Claire Stephens

The great wasp hunt is on

Science

The University of Adelaide, together with Ohio State University in the United States, is to lead a multi-million-dollar global survey of a significant group of tiny parasitic wasps.

The University of Adelaide's Professor Andrew Austin and Dr Norman Johnson, from Ohio State University, will lead a multinational team from nine countries that has been awarded US\$2.6 million (about AUD\$3.5 million) from the National Science Foundation in the US under its Planetary Biodiversity Inventory program.

The five-year project's main aims are to describe and name all 2500 species of Platygastroidea wasps, to explore poorly known areas of the world rich in parasitic wasps,

including forests of Brazil and South-East Asia, the western regions of India and the arid lands of South Africa, and to map their evolutionary relationships using DNA sequences and morphology.

"This grant is a once-in-a-career opportunity. No research funding sources in Australia match this. There will be huge scientific research outputs about this group of insects," said Professor Austin, who is Director of the Australian Centre for Evolutionary Biology and Biodiversity, within the University's School of Earth and Environmental Sciences.

The Platygastroidea wasps are less than 2mm long but are important for three main reasons: they are frequently used as biological control agents of a range of pests, and it is hoped new control agents will be discovered; as parasites of other insects they are extremely important

in maintaining ecological balance; and they are often used as model systems for fundamental research.

"There has been a lot of research on mammals and birds because they are so well known," Professor Austin said. "But this project will produce comprehensive information from around the world on these important insects. It will set the framework for a better understanding of the relationships between parasites and hosts, provide insights into the patterns of diversity of parasitic insects and the evolutionary processes involved, and enable the discovery and description of numerous new species, some of which may provide new natural controls for economically important pests."

The University's Deputy Vice-Chancellor (Research), Professor Alan Johnson, said: "This is a highly significant project which sets the

University of Adelaide firmly in the realm of global research. It will have worldwide impact at not only the research scientist level but also in its applications to agriculture and other industries."

Another part of the project will be the establishment of "cyberinfrastructure" – web-based systems for the real-time global sharing of images and information from the research – which will allow efficient and rapid dissemination of results and that could be applied to similar studies of other organisms.

There is also an important training aspect – at least one postdoctoral researcher and two PhD students will be taken on at the University of Adelaide – and a public access website will make the results available to the general public for educational purposes.

Story by Robyn Mills



Spy studies added to Masters degree

Humanities

Intelligence, counter-intelligence and security studies will be offered for the first time at the University of Adelaide from 2007.

The study areas will be added to the University's highly regarded Masters degree in International Studies, run by the School of History and Politics.

On offer as part of the MA program will be: approaches to strategic cultures and unconventional warfare; intelligence and security after the Cold War; an online course in intelligence and counter-intelligence history; politics of war, old and new; nuclear proliferation; and international security.

"I believe it's the first time intelligence studies have been included on the teaching curriculum in South Australia," said Senior

Lecturer Dr Felix Patrikeeff. "And with the new online intelligence and counter-intelligence history course, we're hoping to widen our student base nationally and internationally."

Dr Patrikeeff said there was considerable interest in the degree from people already working in organisations involved in defence and security. The changes to the degree were also aimed at attracting new graduates interested in careers within those fields.

Dr Patrikeeff said the program will have input from security practitioners who can provide the wisdom of experience to students.

The intelligence and security components of the Masters program will remain as options only in the first instance, in case some students prefer not to undertake these studies as part of their MA in International Studies.

The new focus on intelligence studies got off to a good start last month with an inaugural two-day conference, "Threat Perception in a Complex Environment: Intelligence gathering in the Asia-Pacific".

Intelligence and defence experts gathered at the University of Adelaide to discuss security threats and issues in the current uncertain global environment.

"Governments and businesses across the Asia-Pacific invest billions of dollars into public and private intelligence-gathering agencies in an attempt to understand threats within this difficult environment," Dr Patrikeeff said.

"This conference drew on multidisciplinary expertise from across the region to consider both theoretical and practical aspects of intelligence gathering and the challenges of the current and future threat environment.

Researchers working in the Defence, Science & Technology Organisation's (DSTO) Future Operations Centre Analysis Laboratory (FOCAL)

Photo courtesy of DSTO

"There is obvious growing interest and awareness of these issues as a field of study – demand we will be able to meet with our new options in the MA International Studies."

The conference was jointly organised by the School of History and Politics and the Australian Institute of International Affairs (SA branch) and sponsored by the ARC Asia Pacific Futures Network. It is the first in a planned annual series examining intelligence and security in the Asia-Pacific region and beyond.

Story by Robyn Mills

Putting men's health on agenda

■ Medicine

Are men getting a raw deal when it comes to health? James Smith thinks so and is determined to do something about it.

The PhD student in the Disciplines of Public Health and Medicine at the University of Adelaide said the perception that men were disinterested in their health was untrue.

James, 25, who was named the 2006 Young Australian of the Year for South Australia for his work with men's health, has just been awarded a \$15,000 scholarship by the Masonic Foundation to undertake a men's health policy study tour in the UK and Ireland next year.

The Trevor Prescott Memorial Scholarship, awarded by the philanthropic arm of the Freemasons, will fund the two-week study in June 2007, as well as James's continued work in men's health services.

He will meet with Professor Alan White, the world's first Professor of Men's Health, who is based at Leeds Metropolitan University in England; and with Noel Richardson, who is helping to develop a national men's health policy for Ireland.

"Both men are international leaders in the field of men's health and I hope to put some of their ideas and policies into effect in South Australia," James said.

His PhD, due for completion next March, is looking at how and why men seek help from health professionals.

"To some extent, my research is debunking the myth that men are not interested in their health. They are, but they negotiate their health in different ways to women. They attempt to focus on solutions when they have a health problem. If they can fix it themselves, then they may not seek help. It's a very male-oriented approach."

James's PhD project is part of the University's broader Florey Adelaide Male Ageing Study, led by Professor Gary Wittert, which focuses on the health of more than 1000 men from Adelaide's north-western suburbs.

"We're finding that men who do seek help for health problems are more likely to continue using health services once a diagnosis has been made. It is about pinpointing that a problem does exist," James said.

Although the State Government established a Men's Health Taskforce in 2005, there is still no official men's health policy at a State or Federal level, James said.

"I hope this scholarship will assist in changing that."

James is also developing a resource manual to help general practitioners encourage men to use health services.

His PhD is being supervised by Professor Gary Wittert from the School of Medicine and Dr Annette Braunack-Mayer and Dr Megan Warin from the Discipline of Public Health.

Story by Candy Gibson

James Smith
Photo by
Candy Gibson



Health in Men
Adelaide Hospital
Health Initiative



Interested in medical research but confused by the jargon?
Our young researchers will tell you the latest in everyday language

Young Investigator Award

An initiative of the Children, Youth and Women's Health Service and Faculty of Health Sciences, University of Adelaide

2006

Guest speaker **Amanda Sferruzzi - Perri**
2004 Winner and 2006 SA Young Achiever

6 - 9pm November 2nd
Adelaide Convention Centre, North Terrace

No cost but bookings essential
RSVP by October 26th
Phone 8161 6173 or email chris.baldock@cywhs.sa.gov.au

Excellence in science and communication
www.cywhs.sa.gov.au/yia2006

Bringing women's and children's health research to the public



Government of South Australia
Children, Youth and Women's Health Service

Platinum sponsor



THE UNIVERSITY OF ADELAIDE AUSTRALIA

Gold sponsor



Women's & Children's Hospital FOUNDATION

Silver sponsor

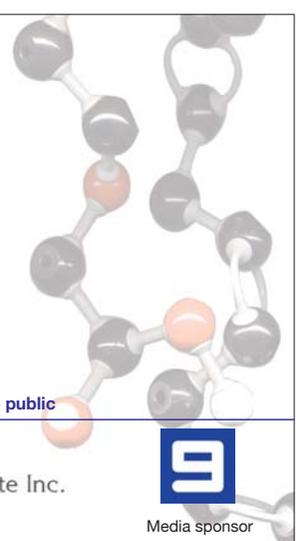


Child Health Research Institute Inc.

Bronze sponsor



Media sponsor





Michelle a model for medical research

Science

Michelle Zucker doesn't fit the science stereotype, not by a long shot. She's young, blonde, vivacious, and wouldn't look out of place on a fashion shoot.

But the 25-year-old joint University of Adelaide and CSIRO Preventative Health Flagship PhD student is passionate about science and wants to spread the word to the broader community.

It's no idle talk, either. In the past two years, Michelle has hit the promotional trail for the science world.

This year she has taken on the role of public relations team leader for the Australian Society for Medical Research, as well as chairing the Australian Biotechnology Students Association. Both jobs require a

dedicated commitment to raising the profile of science. She has also been involved in a number of initiatives, including presenting and meeting with science teachers and visiting primary schools, in an attempt to improve the way science is taught in schools.

Michelle's research could provide vital clues to treating or preventing colorectal cancer, commonly known as bowel cancer. Bowel cancer is the most commonly diagnosed cancer in Australia, which kills on average 4500 people each year. There is currently no cure for bowel cancer, treatment options are limited and the main diagnostic tool can only detect bowel cancer that is already highly developed.

Michelle's PhD, due to be completed in December, focuses specifically on a molecule called butyrate. Butyrate is a by-product of fibre breakdown and has been shown extensively to kill cancer cells, without damaging normal cells.

"This is a very intense project which could have a huge impact in the long term," Michelle said. "There are only eight published papers in the world looking at the same thing I am, and together they are providing insights into how butyrate may be acting. My project hopes to take what we know a step further and identify the molecular mechanism of butyrate action."

Up to 60% of bowel cancers are preventable by diet, so any breakthrough in understanding how fibre works will have significant implications around the world.

"If we can determine how butyrate is able to distinguish cancer cells from normal cells, we can revolutionise bowel cancer treatment and avoid the debilitating effects associated with cancer and chemotherapy," she said.

Michelle was recently awarded a High Commendation at the 2006 Unsung Hero of SA Science Awards

for her science communication efforts, which was presented as a part of National Science Week.

In August she also co-organised and facilitated the "Women on Top" Science Outside the Square event with Baroness Professor Susan Greenfield and Professor Caroline McMillen. The event attracted more than 800 members of the public including many school girls and parents of Walford Anglican School, who came to hear the women share stories about their lives as women in science.

Michelle gained First Class Honours in Neurophysiology in the University of Adelaide's School of Molecular and Biomedical Science in 2002. Since 2003 she has been working on her PhD under the supervision of Professor John Wallace (University of Adelaide), Professor Richard Head and Dr Leah Cosgrove (CSIRO).

Story and photo by Candy Gibson

Coorong champions lead the way



The world-famous South Australian wetlands region, the Coorong, is the focus of a new multi-million-dollar research partnership that aims to restore the ecological health of the region and protect threatened birds and fish.



Led by University of Adelaide scientist Dr Mike Geddes, the multi-disciplinary research team will carry out a detailed study of the Coorong, the Lower Lakes and the Murray Mouth (CLLAMM) ecosystems.

Researchers will produce models to predict how future environmental management decisions may affect this vulnerable region.

Partners in the new research cluster (CLLAMMecology) are: the CSIRO, through its National Research Flagship Water for a Healthy Country, the University of Adelaide, Flinders University, and the South Australian Research and Development Institute (SARDI) Aquatic Sciences.

The program will receive \$2.2 million from the CSIRO Collaboration Fund, with a total investment of \$5.3 million over three years.

“This is the first comprehensive research program for this estuary,” Dr Geddes said. “We will examine hydrology, aquatic, bird and fish ecology, and social sciences.

“The research aims to improve the habitat of migratory birds, increase the numbers of estuarine fish, promote the growth of aquatic

plants and to protect the Coorong as an internationally recognised wetland which is suffering salinity problems.”

Dr Geddes said the Coorong, made world-famous in the Australian movie *Storm Boy*, was recognised internationally as one of Australia’s major wetlands and was listed in the international RAMSAR Convention on Wetlands.

“Despite this worldwide recognition, the Coorong is in a bad way,” he said. “There’s serious ecological degradation, and hyper-salinity is threatening various species of fish and birds. The Coorong is particularly significant for many species of migratory waterbirds.”

Dr Geddes said the study aimed to deliver a set of ecosystem-level models which could be used to evaluate alternative future scenarios within the larger Coorong region.

There will be four key research activities, each headed by a leading researcher at one of the partner institutions. These are:

- documenting the responses of key species to changes in aquatic environments under different management regimes (Dr David Paton, University of Adelaide);

- examining the effects of increased water flows and whether these lead to increased productivity in the food-chain (Dr Justin Brooks, University of Adelaide);

- producing a dynamic model of the extent and quality of the habitat (Dr Jason Tanner, SARDI Aquatic Sciences);

- and bringing these lines of ecological information together to produce ecosystem-level models (Professor Peter Fairweather, Flinders University).

Together these studies will enable researchers and water managers to predict the impact of changes in water flow on the ecology of the region.

A number of management agencies are supporting the development of the program, including the SA Department of Water, Land and Biodiversity Conservation, SA Department of Environment and Heritage, the Murray-Darling Basin Commission, Land and Water Australia, the Fisheries Research and Development Corporation, and the South Australian Murray Darling Natural Resource Management Board.

Story by Robyn Mills

Main photo: The beach region provides a habitat for many species of birds and fish
Photo by Lydia Paton

Facing page: The impact of ecological changes on bird life will be a focus of the new Coorong research
Photo by Lydia Paton



Dr Mike Geddes (School of Earth & Environmental Sciences) is interviewed by media about the new research cluster
Photo by David Ellis



The mouth of the River Murray – not so mighty as the river itself, but a spectacular sight nonetheless
Photo by Michael Bell, Murray-Darling Basin Commission

Forum focus on child health

■ Health Sciences

A research symposium on health issues affecting infants, children and adolescents will be held at the University of Adelaide next month.

Hosted by Healthy Development Adelaide, the forum will give PhD students and early career researchers from South Australia's three universities the opportunity to present their work in four key areas: Healthy Pregnancy and Parenting, Healthy Reproduction, Healthy Weight and Nutrition, and Healthy Development.

Prizes will be awarded for the best presentations by a PhD candidate and an early career researcher, together with a prize for the best multi-disciplinary research presentation.

Dr Julia Pitcher from the University of Adelaide's Discipline of Obstetrics and Gynaecology will give the opening talk on strategies for succeeding in early career research. A highlight talk at the end of the day will also be presented by Dr Rob Morrison from Flinders University on how scientists can best get their message across to the media.

Healthy Development Adelaide (HDA) was formed in 2004 and is led by Professors Robert Norman, Caroline McMillen and Michael Sawyer.

HDA fosters research between various disciplines and has a statewide focus that includes members from the University of Adelaide, the University of South Australia, Flinders University, Children Youth and Women's Health Service, relevant organisations and government departments.

It is the only centre in South Australia to focus on multi-disciplinary research relating to the healthy development of infants, children and teenagers.



Earlier this year, the University of Adelaide awarded four inaugural HDA scholarships to the following postgraduate students:

- Leigh Guerin (Role of maternal T regulatory cells in healthy pregnancy);
- Siew Seen Lim (Impact of obesity in reproductive outcomes for women);
- Anne Raimondo (Role of the Single-Minded protein 1 in early neural development);
- Lynlea Simmonds (Pharmacological, cognitive and emotional outcomes of ecstasy use in young people).

The research symposium will be held on 2 November. For more information, visit www.adelaide.edu.au/hda/events, or contact Anne Jurisevic, HDA Network and Communications Officer, on (08) 8303 8222 or email: anne.jurisevic@adelaide.edu.au

Story by Candy Gibson

Concert honours son's memory

■ Music

The fourth concert in the Elder Conservatorium of Music Evening Concert Series, "Tribute", at 6.30pm on Saturday 14 October in Elder Hall, features the highly acclaimed Elder Conservatorium Wind Orchestra conducted by Robert Hower.

The works in this program are all Australian premières and were commissioned by the world's leading conductor of wind orchestras, Timothy Reynish, whose son, William, died in a mountaineering accident in 2001.

Following his death, many composers around the world offered to write pieces in his memory. Some of those are featured in this concert and include: *Dances from Crete* by Adam Gorb; *Symphony for William* by Derek Bourgeois; *Bright Spirit* by Judith Bingham and *Song of Lir* by Fergal Carroll.

This concert is a celebration of William Reynish's short life and it's hoped the audience will be uplifted and moved by the music being presented by the Elder Conservatorium Wind Orchestra.

Tickets are \$22 adult/\$17 conc/\$12 student, available from BASS or dial'n'charge 131 246. Tickets will also be available at the door.

For more information, please contact the Manager, Evening Concert Series on (08) 8303 5286 or email: helen.simpson@adelaide.edu.au

WE LANE
PRINT GROUP
**UNDERSTAND
YOUR
DEADLINES**

Colour printing
Digital printing
Direct mail processing
Digital imaging
Internet development
Software development
Graphic design

Telephone
08 8179 9900

Facsimile
08 8376 1044

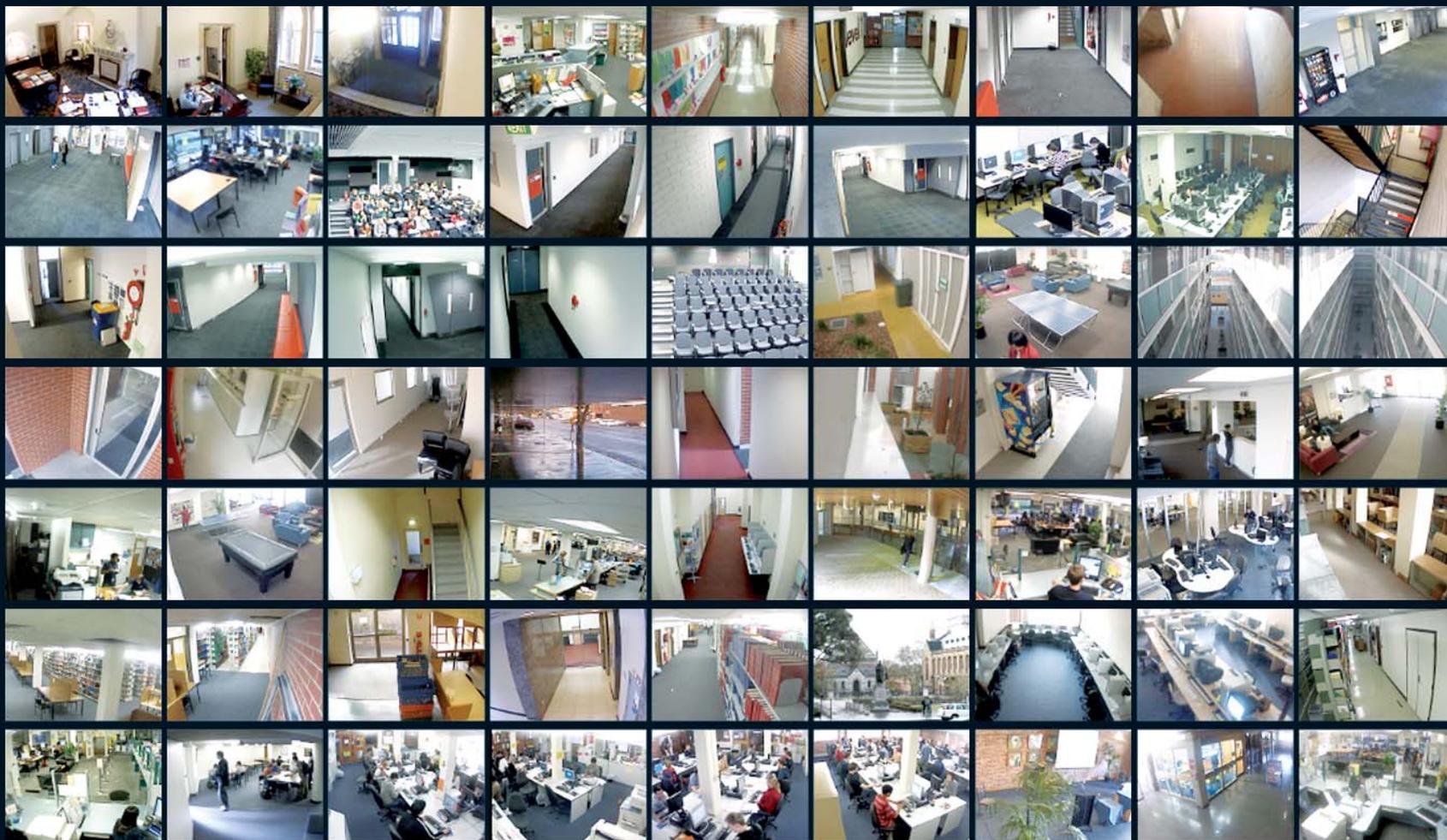
Website
www.laneprint.com.au

28TH SEPTEMBER - 29TH OCTOBER 2006
GREEK ORTHODOX COMMUNITY OF SOUTH AUSTRALIA INC.

ODYSSEY
ADELAIDE'S HELLENIC CULTURAL FESTIVAL

Free public events will be held at the University of Adelaide in October.

For more information contact the Greek Orthodox Community of SA phone (08) 8231 4307 or (08) 8231 2925 www.greekocsa.org.au



Surveillance systems put the “eye” in intelligent

Computer Science

Security cameras are turning up everywhere – in airports, shopping centres, public streets, buses, and even the University of Adelaide. The difference here though, is that they’re intelligent.

Like many other organisations, the University of Adelaide uses video surveillance on its campuses.

At any one time, the University has more than 100 cameras placed in strategic sites around the North Terrace Campus and elsewhere in the CBD. They operate 24/7 and help ensure the safety and security of staff, students and visitors.

Researchers in the University’s Australian Centre for Visual Technologies have developed the software for the hi-tech surveillance system, working within the School of Computer Science.

The Adelaide research team is also responsible for the technology

behind the world’s most popular automated video surveillance product – currently used to monitor the Sydney Harbour Bridge and a host of airports, railway stations and shopping centres, among other locations.

Dr Anton van den Hengel, the Director of the Australian Centre for Visual Technologies, said the research takes video surveillance one step further by helping to develop the next generation of “intelligent” monitoring systems.

The new centre promotes innovative, computer-based technologies for the production and analysis of digital media. “Our goal is to link creative activity in the digital arts with cutting-edge technologies in computer science,” he said.

The centre operates on three platforms – research, communication and innovation.

“On the research side we have just signed a major contract with one of the primary international producers

of video technology. We are also negotiating with a number of local companies on projects involving the analysis of 3D data and the technologies involved in large-scale automated video surveillance,” Dr van den Hengel said.

University of Adelaide Security Operations Manager Dave Eason described the campus surveillance system as “one of the most sophisticated” in Australia, certainly in the education sector.

“It is one of a kind in South Australia and has led to significant reductions in the incidence of theft and break-ins on the campus,” he said.

The Australian Centre for Visual Technologies is also working with the Defence Science & Technology Organisation (DSTO) to generate 3D maps from videos captured by unmanned aircraft.

“We can take the footage from video cameras attached to unmanned aerial planes and generate a 3D map of any given area. This provides

the department with detailed maps for planning purposes,” Dr van den Hengel said.

“The same technology can be used by agri-businesses to help plan where fertilisers should be applied, which sections of land need more irrigation, and in virtual reality to allow computer-generated objects to be inserted into real video. Similarly, we are also writing software for unmanned aircraft to survey marine national parks and identify illegal fishing boats.”

Dr van den Hengel said the School of Computer Science planned to offer Masters and Bachelor degrees in Visual Technologies in 2008.

“It will be a course about giving people the computer science and visual skills to be able to move with the technology,” he said.

For more information about the Australian Centre for Visual Technologies, visit www.acvt.com.au

Story by Candy Gibson

Professor Milton R. Sims, AO (1927-2006)

Obituary

The Dental School was saddened to learn of the sudden death of Professor Milton Reginald Sims on 31 May 2006. Professor Sims was an orthodontic pioneer who devoted his life to teaching, research and clinical service for the benefit of the University and the general community. He was acknowledged as an international leader in his field and was the recipient of many research and service awards.

Professor Sims gained his undergraduate dental degree from the University of Adelaide in 1950 and, after receiving a Fullbright Scholarship and starting a Master's Degree, pursued a love of orthodontics by travelling to the United States to complete a Master of Science in Dentistry degree from Boston University in 1963.

On returning to Australia as a Reader in Orthodontics, he became an inaugural Fellow of the Royal Australasian College of Dental Surgeons, a fellow of the International College of Dentists,

and was admitted to the degree of Doctor of Philosophy at the University of Adelaide in 1985.

Concerned that there was no orthodontic program at the University of Adelaide and few in Australia, Professor Sims initiated and developed a postgraduate course which trained dentists in the art and science of orthodontics. Until his retirement in 1993, 45 students graduated from his program and went on to fulfil their professional obligations nationally and internationally.

All of his students were impressed with his clinical expertise and his attention to detail that marked his course as the finest in Australia and on a par with the best in the world.

Upon his retirement from the University of Adelaide, he accepted the Chair and became Head of the orthodontic department of the University of Sydney where he continued his teaching until the end of 1996.



As a disciple of P. R. Begg (1898-1983), Professor Sims championed the Begg treatment philosophy particularly when he was in the United States in the early 1960s. He provided many lectures and courses of instruction that ensured the University of Adelaide was on the world stage. Through his teaching efforts the Begg Technique blossomed to be accepted and adopted globally. Professor Sims was also responsible for the establishment of Begg study groups and societies in Australia and many countries overseas.

A keen and fastidious researcher, Professor Sims held a lifelong

interest in the periodontal ligament surrounding the tooth and marvelled at its ability to facilitate tooth movement while maintaining its own integrity. His research into this unique structure led to the publication of numerous articles and book chapters and, for his cumulative works, he was awarded a Doctor of Dental Science degree in 2004 from the University of Adelaide at the young age of 77 years.

After his retirement from clinical teaching, he maintained a heavy schedule of scholarship and research and, at the time of his death, was preparing teaching material for postgraduate presentation.

For his service to dental education and orthodontics Professor Sims was awarded the Order of Australia in June 2000. He was a proud contributor to the life of the Dental School and to the University and was an inspiration to all who knew him. His knowledge and expertise will be greatly missed. Vale Milton.

Contributed by Craig Dreyer

Biofuels vehicles are here!

story from page 1

Hybrid Solar Car

The objective of this project is to promote and develop a hybrid solar car for everyday use. Labelled HELIOS (Hybrid Electric Lithium Ion Solar), the car uses solar panels, in-hub motors, mains rechargeable batteries, a skateboard chassis and multiple electrical engineering feats such as touch screens and rear vision cameras.

Some of the other fascinating projects on display include:

Equipment for Ambulance Officers

This project was motivated by a desire by the SA Ambulance Service (SAAS) to reduce the amount of manual handling required of paramedics. The project involved the design of a trolley to transport equipment currently carried by SAAS personnel, the design of a system to lift the trolley in and out of the ambulance, and a system to significantly reduce the manual handling risk involved in lifting obese patients into ambulances.

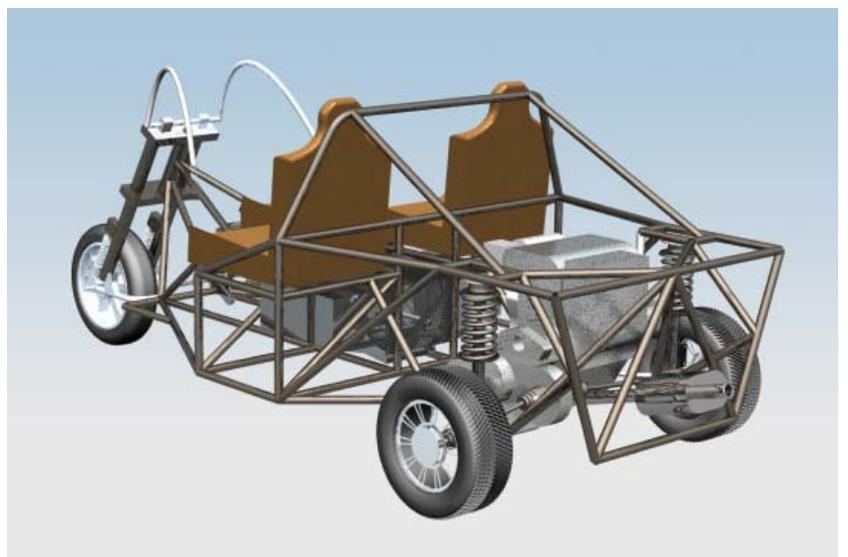
Right: Students' design of the bio-oil motor trike, which will be entered into the Greenfleet technology class of the World Solar Challenge

Robot Spider

In some industries, certain zones and areas consisting of high contamination and pollution or high risk are not accessible by human beings. These include the nuclear, chemical and power generation industries, and inspection and maintenance of tall buildings. The aim of this project is to design and build an autonomous spider robot prototype to access those areas.

Hypersonic Vehicle

Students in this project are researching and designing an efficient, air-breathing hypersonic "waverider" vehicle that utilises supersonic combustion ramjet (scramjet) propulsion. It involves the development of an unmanned aerial vehicle (UAV) that must be able to cruise 30km above the Earth's surface at Mach 8, with a minimum range of 1000km.



Human Cough Detector

This project aims to develop a portable device to detect coughing by recording acoustic signals and registering movement. This project is aimed at putting more science into the assessment of coughing symptoms among patients. To date, methods used to assess coughing have been primarily subjective.

What: School of Mechanical Engineering Project Exhibition
Where: Level 4, Union Building, University of Adelaide, North Terrace Campus
When: 10am-5pm Friday 27 October
Cost: FREE – open to the public

International Open Days 2006

Open Day normally refers to the day when the University of Adelaide opens its doors to the public – in Adelaide.

But Open Day took on a new, global dimension last month when the University held two International Open Days, one each in Malaysia and Singapore.

The events encouraged current and prospective students, friends, family and everyday Malaysians and Singaporeans to learn more about Adelaide without setting foot outside their home countries.

The International Open Days, held at the Hotel Nikko, Kuala Lumpur, and the Orchard Hotel, Singapore, drew hundreds of people to both events.

More than 20 University of Adelaide staff attended the days, which were opened by the Chancellor, the Hon. John von Doussa QC.

University staff joined with local education partners and alumni to present a wide range of information about education, research, scholarships and the ongoing fellowship with the University shared by South-East Asian graduates.



Top: Information about academic programs was a high priority for most visitors to the International Open Days

Above: Development and Alumni had a strong presence during the weekend

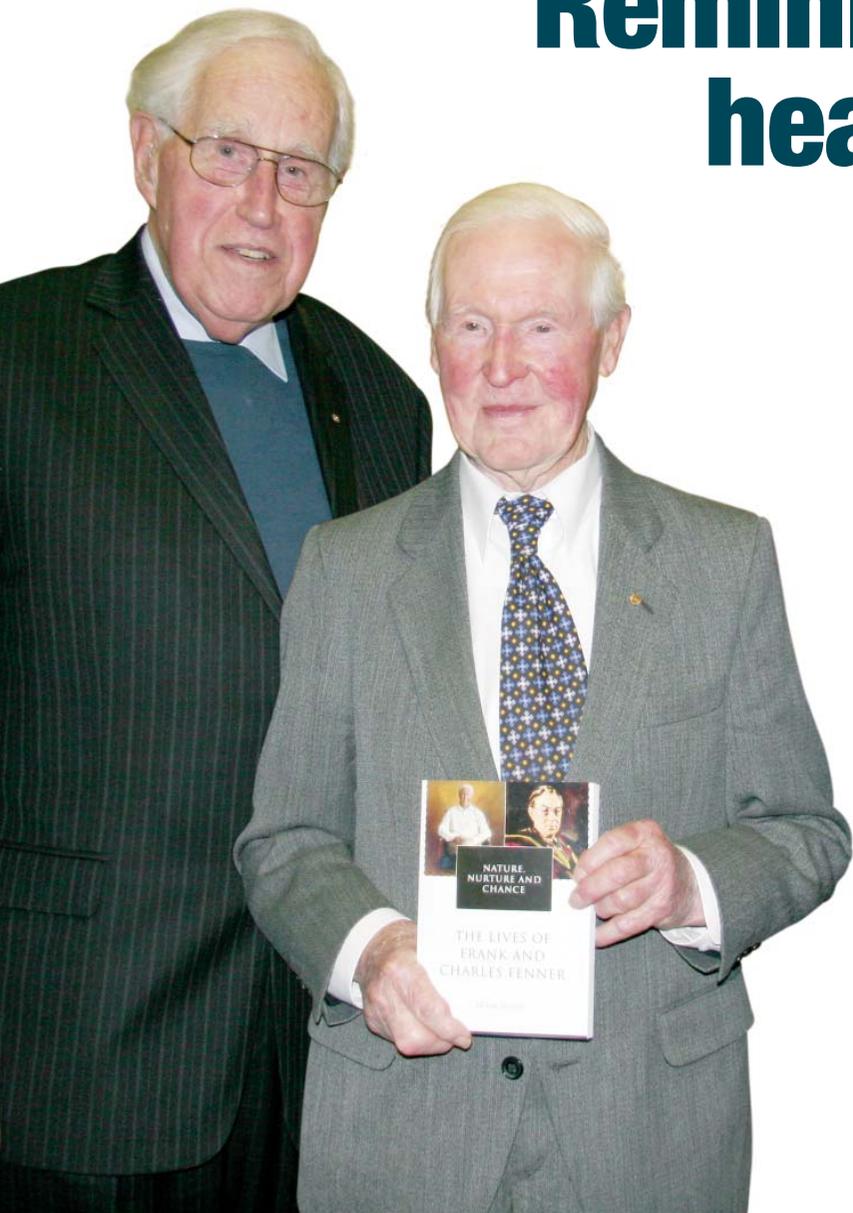
Right: Visitors of all ages attended the International Open Days

From left: The Chancellor, the Hon. John von Doussa QC, with Singapore's Ambassador to Kazakhstan and Uzbekistan, University of Adelaide Civil Engineering graduate Sim Check Lim, and Professor John Taplin, Pro Vice-Chancellor (International)

Photos by Kim McBride



Reminiscing about world health breakthroughs



■ Alumni

Two of the University of Adelaide's most distinguished graduates – both known for their breakthroughs in world health – met at the University's Barr Smith Library recently to launch a book and reminisce about life in the health sciences and world-changing research.

Professor Frank Fenner CMG MBE AC is credited with overseeing the eradication of smallpox and controlling Australia's rabbit plague through the introduction of myxomatosis.

The Hon. Dr Basil Hetzel AC made a difference to the lives of millions with his discovery in the 1960s that iodine deficiency was the cause of severe brain damage among Papua New Guinean highlanders. The global prevention of this problem became his life's work.

Both men are medicine graduates of the University of Adelaide and Dr Hetzel is a former Professor of Medicine at the University.

At the Barr Smith Library, Education and Children's Services Minister the Hon.

From left: Dr Basil Hetzel and Professor Frank Fenner
Photo by Candy Gibson

Jane Lomax-Smith launched Professor Frank Fenner's latest book, *The Lives of Frank and Charles Fenner*, and University of Adelaide Vice-Chancellor Professor James McWha welcomed the two back to the University.

The book is about Professor Fenner and his father Charles, also associated with the University. Charles Fenner was South Australian Director of Education from 1939 to 1946 and integral in establishing geography studies at the University.

Distinguished by numerous awards, Professor Frank Fenner won the Japan Prize for preventative medicine in 1988, the Prime Minister's Science Prize in 2002 and just this year was named ACT Senior Australian of the Year.

He had an outstanding career as a microbiologist and world expert on pox-virus. He was Chairman of the Global Commission for the Certification of Smallpox Eradication and, in 1980, he announced the eradication of smallpox to the World Health Assembly.

The book launch was followed by a conversation between Professor Fenner and Dr Basil Hetzel in the Barr Smith Library's magnificent Reading Room.

Story by Robyn Mills

Super courses judged best in Australia

■ Finance

Two new "super" courses offered by the University of Adelaide have been awarded the highest ranking in Australia.

The courses, on self-managed superannuation funds, are taught by the International Centre for Financial Services (ICFS). They have been officially accredited with an 83% quality rating by the Self-Managed Superannuation Fund Professionals Association of Australia.

The Certificate in Self-Managed Super Funds (non-award course) and the Professional Certificate in Self-Managed Super Funds (award course) will be run over four days, starting this month.

They are the first university-level courses of their kind in Australia

and reflect the huge growth in self-managed superannuation funds, according to ICFS Director Clive Perring.

"At the moment there is \$905 billion worth of superannuation in Australia," Mr Perring said. "Each year, about \$60 billion is put into superannuation, most of that from the Federal Government's compulsory 9% levy. At the same time, there is \$75 billion worth of growth. That money only has to make 10% a year and you have another \$90 billion."

Currently, \$192 billion is invested in self-managed superannuation funds across Australia, with 2000 new funds being opened every month.

With 350 accredited self-managed super fund advisers working in a field experiencing a 22% growth

rate, the demand for experience and specialised advice is growing, Mr Perring said.

"People who have these funds tend to be wealthier, and we're talking about massive amounts of money. Australia needs specialised people to help oversee these funds and we're filling that gap."

The ICFS was formed last year and will be officially launched at the National Wine Centre on October 6 by Professor Fred McDougall, the University's Deputy Vice-Chancellor (Academic).

"The Centre provides a link between the academic world and industry," Mr Perring said. "Its role is to provide short courses and undertake research and consulting work in the financial services sector and wealth management area."

Both award and non-award courses are offered, along with training programs aimed at professionals working in the industry.

The Certificate in Self-Managed Super Funds is designed for professionals not working in the university system. The Professional Certificate is available for people studying at postgraduate or masters level within a university.

Mr Perring said the ICFS bids for State, national and international consulting work relating to the financial services industry. ICFS consultants have worked on projects for the Asian Development Bank, the World Bank and various large private sector banks and managed funds.

Story by Candy Gibson

Making a real difference

Scholarships

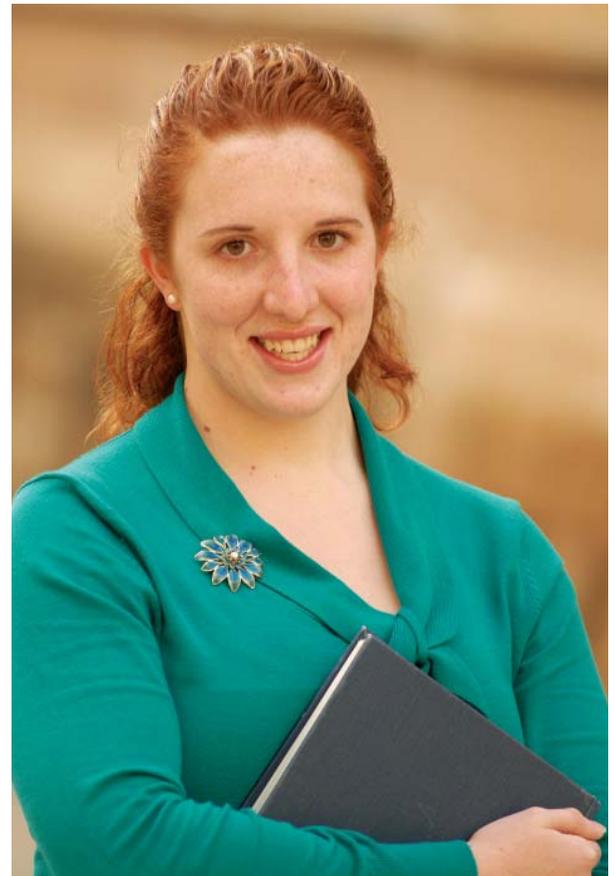
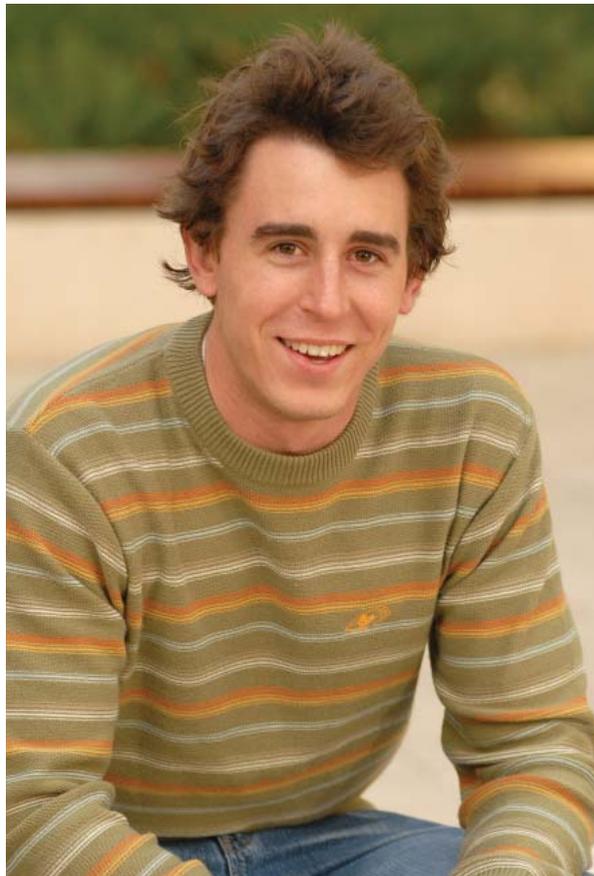
Many gifted students are faced with financial barriers to university study, from rising course fees to the cost of living.

Since 2002, the Vice-Chancellor's Scholarship Fund has provided two talented and deserving students each year with the financial support to obtain a university education and pursue their dreams.

The scholarships make a real difference to students' lives – just ask this year's recipients, Glenn Smith and Vanessa Hughes.

Glenn, who is studying a double degree in Finance and Law, says the scholarship has helped to relieve the financial burden of moving and studying away from home, allowing him to focus on his studies.

"Especially in my situation, where my parents live in the country and I need to support myself away from home, the scholarship has made the transition to university much easier and I'm grateful for that," Glenn said. "I just hope people who give to the Scholarships Fund understand the difference they make!"



Medical student Vanessa Hughes, who hails from Alice Springs, equally values the Fund. "It is an honour to receive such a prestigious award and I truly hope that future students can benefit from the Scholarships Fund just as I have," Vanessa said.

Vanessa said the scholarship had greatly eased the difficulties of

moving interstate, funding her flights back home during the holidays and allowing her to reside at St Ann's College, "a home away from home", during the semester. The funds have also helped her purchase medical textbooks.

The scholarships are entirely funded by gifts from alumni and friends of the University.

Glenn Smith and Vanessa Hughes
Photo by John Hemmings

To support the fund, or for more information, contact Development and Alumni on (08) 8303 5800 or email: alumni@adelaide.edu.au

Development & Alumni Events

Friends of the University of Adelaide Library

Event: Author/Scholar Evening with Dr Anne Summers in conversation with Carol Treloar and Sandy Pitcher

Venue: Ira Raymond Exhibition Room, Barr Smith Library, University of Adelaide

Date: Thursday 5 October

Time: 6.00 for 6.30pm

Cost: Admission is free and open to the public: gold coin donation invited. Seating is limited.

RSVP: by Tuesday 3 October to karen.hickman@adelaide.edu.au, ph (08) 8303 4064

Event: Author/Scholar Evening with Professor Lyndall Ryan, author of *The Aboriginal Australians*

Venue: Lower Ground Room LG29, Napier Building, University of Adelaide

Date: Thursday 2 November

Time: 6.00 for 6.30pm

Cost: Admission is free and open to the public: gold coin donation invited. Seating is limited.

RSVP: by Tuesday 31 October to karen.hickman@adelaide.edu.au, ph (08) 8303 4064

Roseworthy Old Collegians Association

Event: ROCA Annual General Meeting and Annual Dinner

The 2006 Award of merit will be presented in conjunction with the 108th AGM and 2006 Annual Reunion Dinner. Featured also will be 10, 25, 40 and 50-year reunion groups.

Venue: Glenelg Golf Club, James Melrose Drive, Novar Gardens

Date: Friday 13 October

Time: 7.00pm

Cost: \$40 for members; \$45 for non-members

RSVP: Dr David Cooper, ph (08) 8363 4371 (work), (08) 8332 5982 (home)

University of Adelaide Sydney Chapter

Event: Sydney Chapter Cocktail Event

Venue: Music Cafe, Sydney Conservatorium of Music, Macquarie Street, Sydney

Date: 1 November

Time: 7pm-9pm

Cost: \$10 (to be confirmed)

RSVP: An invitation will be emailed/posted to you if you are registered with the University of Adelaide's Alumni office. Otherwise, download an invitation/registration form from: www.adelaide.edu.au/alumni/chapters/sydney_chap.html (in October 06)



Pacy parody tickles the funny bone

Theatre

Murder, vice, beautiful women, farce, anger, weapons, death – they're all subjects close to lawyers' hearts.

It is no wonder, then, that thespians from Adelaide's legal circles dominate the cast of the Theatre Guild's next production, *The Real Inspector Hound*.

Playwright Sir Tom Stoppard's sparkling send-up of the "whodunit" murder mystery and the accompanying parody of theatre critics is a "beautifully constructed piece of writing", according to director and criminal lawyer John Wells.

Wells's theatrical talents were honed at the University of Adelaide's drama department in the late 1980s while studying for a law degree.

He was one of the founding members of Parting Company, a local theatre group which performed many Shakespearean plays and comedy reviews through to the mid 1990s.

The Real Inspector Hound is a short play written by Stoppard in 1961. The storyline follows two theatre critics, Moon and Birdboot, who are watching a ridiculous set-up of a country house murder mystery in the style of a "whodunit". By accident, they become involved in the action, causing a series of events that parallel the play they are watching.

"If you like death, intrigue and wit, you will really enjoy this play," John said. "It will appeal to theatre goers with a literate humour. It is very intelligent but also very playful."

The characters include glamorous starlets, raffish cads, a mysterious

gun-toting wheelchair-bound outsider, an unhinged police officer, as well as two bombastic theatre critics.

Dr Ben McCann, a lecturer in French at the University of Adelaide, plays one of the central characters, Moon.

A relative newcomer to the University (he arrived in mid April), Dr McCann has an enviable reputation in amateur theatre. In 1999 he was voted Best Student Actor of the Year while studying at the University of Bristol in the UK. His acting repertoire includes plays by Shakespeare, Sam Shepard, Mike Leigh, David Mamet, Molière and Oscar Wilde. He has also turned his hand to directing – both French and English plays.

"This is my first foray into Stoppard and I'm looking forward to it," he said. "It is very much an Agatha

The colourful cast of *The Real Inspector Hound*
Photo by Cassandra Backler

Christie-type scenario, with various different levels of reality.

"Sir Tom Stoppard has built his whole career on playing with the conventions of the theatre. This production is very liberating for an actor because it is a relatively short play, but quite pacy, and leaves you room to experiment with your character."

The Real Inspector Hound opens at the Little Theatre, The Cloisters (off Victoria Drive) at the University of Adelaide on Saturday 30 September at 7.30pm. Other performances are from 3-7 October and 10-14 October.

Tickets \$25 full/\$20 concession. Tuesday performances \$15 for University students and staff.

Story by Candy Gibson



October 2006

101.5fm

radio.adelaide.edu.au

Subscribe in October...

our prize draw is the opportunity to win your own private 2 hour

Cocktail Party

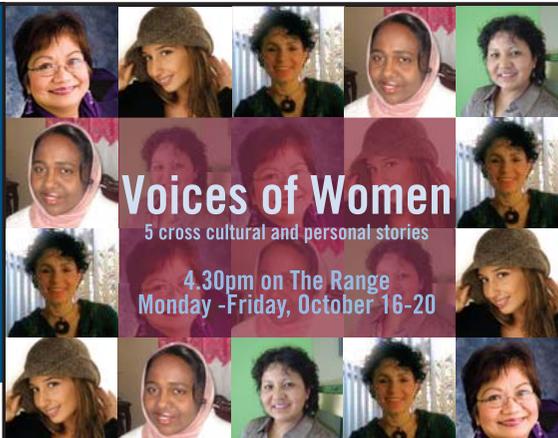
for 20 people, complete with live jazz, cocktail food, featuring uncorked wines and Crown Lager

Only \$52 or \$26 concession - call during business hours on 8303 5000 or email radio@adelaide.edu.au

Total value of \$1000



www.wineaustralia.com.au



Voices of Women

5 cross cultural and personal stories

4.30pm on The Range Monday -Friday, October 16-20

mental health

everyone's responsibility



special features all week
october 8 to 14