

## New study unlocks health secrets of a country town

A MAJOR new survey has found that the much publicised, but little researched, differences in health between metropolitan and regional people in South Australia do exist.

The survey, commissioned by the South Australian Centre for Rural and Remote Health (SACRRH) and conducted by the Department of Human Services, is believed to be the first of its type conducted in regional South Australia.

It focused on the Upper Spencer Gulf city of Whyalla, which is the largest city in the State outside of the metropolitan area, with a population of almost 24,000.

Some 1000 Whyalla residents were surveyed by phone, with the key findings including:

- A very high rate of hearing loss, with 17% of respondents reporting a medical diagnosis of hearing loss. The figure was far worse for men, with a staggering 26% of men having hearing loss, while only 8% of women had hearing loss;
- Higher-than-State average rates of obesity, asthma and diabetes;
- A lower rate of arthritis compared to the rest of SA;
- no difference in the rate of osteoporosis.

Respondents were asked about various health issues affecting them, including physical and mental health,

major illnesses, injuries, the use of medication, and health risk factors like weight, smoking, drinking, and illicit drug use.

While some of the survey results cast Whyalla in a less-than-positive light compared to the rest of the State, others were surprisingly good, according to SACRRH's Director of Public Health, Mr Jeff Fuller.

"A major reason for focusing this survey on Whyalla was the declining population and threatened economic base of the city," he said.

"It might be expected in such a city that mental and emotional health would be reduced compared with the rest of the State. Contrary to these expectations, there were no differences in levels of severe depression, social dysfunction, anxiety and insomnia, or overall prevalence of mental health conditions in Whyalla compared with the rest of the State.

"Such health information from an important regional city is of great national interest, and represents a significant achievement in the quest for increased equality in health status between metropolitan and regional areas."

The SACRRH is a partnership between Adelaide University, University of South Australia, and the Commonwealth Government.

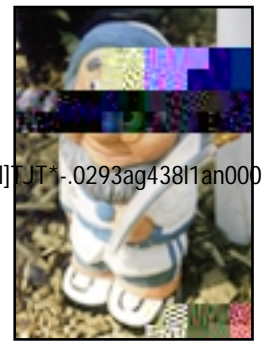
—Ben Osborne

## Olympic flame fever



FLAMES big and small were the flavour of the month in September—and rightly so.

The main stadium cauldron (pictured above) at the Sydney 2000 Olympic Games was one of the event's most highly photographed icons, ever popular with games-goers who posed "holding" the cauldron as iug.r]



## Molecular biosciences finds a new home, new focus

THE NEW Molecular Life Sciences Building, which will be officially opened on 12 October by Sir Gustav Nossal, is already in use. Or at least, partly so.

A procession of removalist trucks, trolleys and loaders has been converging on the six-storey building, bringing equipment and resources from various locations around the University.

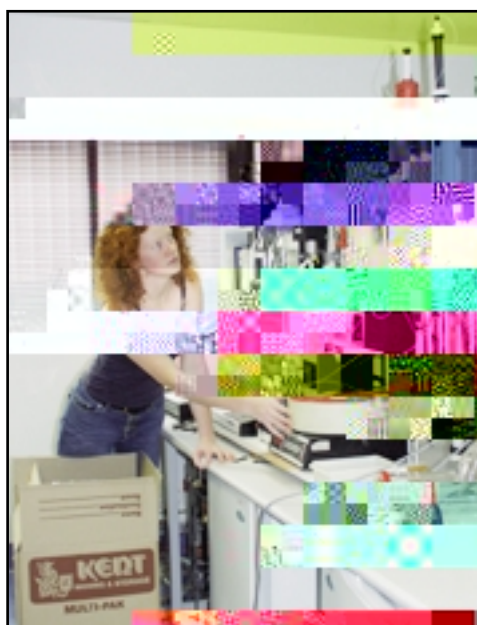
The building will be the home of the equally new Department of Molecular Biosciences, which amalgamated the former departments of Biochemistry, Genetics and Microbiology & Immunology. Staff, students and resources are on the move from their former homes to the state-of-the-art building. For some, it is a move that is long overdue.

"The places where they were doing their science were becoming very overcrowded, and very outmoded," said Mr Doug Pottrell, the Senior Administrator of the new department.

"The Fisher building, for example, has had asbestos problems, and these have all been driving forces for a new building for the future," he said.

"The merger is a very obvious one. We're looking for a lot of synergy from that merger, and with new facilities in a new building we expect some very exciting science."

The building will also house the Special Research Centre for the Molecular Genetics of Development. Research in this area is very fast moving, so how does one design a building that will accommodate future research needs that



Jessica Roediger, an Honours student in Biochemistry, unpacks apparatus for purifying protein in the new laboratories.

may differ from those of today?

"We tried to design a building that would last a good 50 years," said Mr Pottrell.

"The three main concepts that we put into the building were flexibility, flexibility and flexibility. We can remove walls, split or merge rooms, turn labs to serve different functions and so on. There is a central zone throughout the building that houses all the shared equipment, increasing laboratory efficiency quite a bit."



The entrance to the new Molecular Life Sciences Building. Photo courtesy of Doug Pottrell.

In fact, efficiency of occupancy and use is more than 70% in the new building—a considerable improvement on the 60% that is more common in traditional laboratories of this type.

Much of the new equipment comes by way of special grants, but the new building has impressive built-in resources, too, including

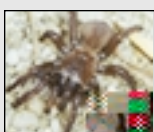
computer-programmed plant growth cabinets and animal rooms, and a number of specialist laboratories.

Around 500 people from all around Australia, including leading scientists, science writers and dignitaries, have been invited to the formal opening of the building.

—Rob Morrison

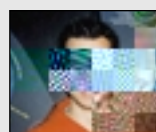
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## Higher education: the corporate view

The global president and chief executive of Hewlett-Packard, Carly Fiorina, is among the world's most respected business leaders. This year, she topped *Fortune* magazine's list of the most powerful women in American business for the second successive time.

Not surprisingly, Fiorina attracted media interest when she visited Australia last month. (One of her engagements was a meeting with the University's Executive Director of Student and Staff Services, Ian Creagh, in Melbourne. The two signed a Memorandum of Understanding appointing Hewlett-Packard as the University's partner for desktop computer procurement for the next three years. See last issue of the *Adelaidean*).

In interviews with *The Australian's* Robert Gottliebsen, Fiorina and two other visiting corporate leaders—Microsoft's Bill Gates and Jack Welch of General Electric—gave their views on what Australia needed to do to ensure long-term prosperity. A common theme, emphasising that Australia could really push its role in the knowledge economy, ran through their responses.

Welch identified "brain power" as the most important requirement. "Australia has natural resources and brains," he said. "So Australia is a place where intellectual capital is critical."

Gates emphasised the need for skills education. He also suggested that Australia should establish a university of excellence and technology to attract top people from around the world.

Fiorina said there was no quick way to develop a smart, high-tech economy. "Becoming a centre of technology requires a systemic, long-term commitment and approach," she said. "It is about having a connected program addressing questions such as taxation, public policy and education. It requires a fairly close corroboration between industry and government to make the right choices across those issues. And there is no quick fix."

These three corporate chiefs are not the only leaders who have been promoting the value of education in recent weeks. On my brief visit to the World Economic Forum in Melbourne last month I heard speaker after speaker underline the central role of higher education as a driver of economic growth.

Clearly there's a recognition at the highest levels of business of the essential importance of universities as powerhouses of the knowledge economy. But what of governments? There's a lot of rhetoric at both Commonwealth and State level that governments value the economic and social benefits generated by universities. The funding support they provide, however, sends a different type of message.

Universities like our own are thinking long and hard about our future: our goals, our vision and how we are going to achieve them. We're also being creative in seeking out new sources of funding. But we need—and deserve—adequate levels of public funding. To return to the

# Environmental conference covers diverse topics

THE SECOND conference for postgraduate students across different departments and schools at Adelaide University attracted higher levels of interest this year.

When organising the first conference for postgraduate students of the environment last year, Dr David Walker of Civil & Environmental Engineering was surprised to find some 30 different departments had students researching an area related to the environment.

Last month's gathering continued the pattern of varied and tremendously interesting presentations, with a selection of eight students from departments as diverse as English, Environmental Biology and Law.

Associate Professor Rob Fowler (Law) introduced the conference with a plea for more interdisciplinary exchanges, arguing how appropriate the interdisciplinary approach often is for environmental topics.

Two papers discussed watercourses, with Mark Siebentritt (Environmental Biology) stressing the importance of variable flows to rehabilitation of wetland vegetation along the River Murray, and Thi Thu Houng Hoang (Soil & Water) arguing that artificial modelling of certain types of streams can be used to successfully predict their condition.

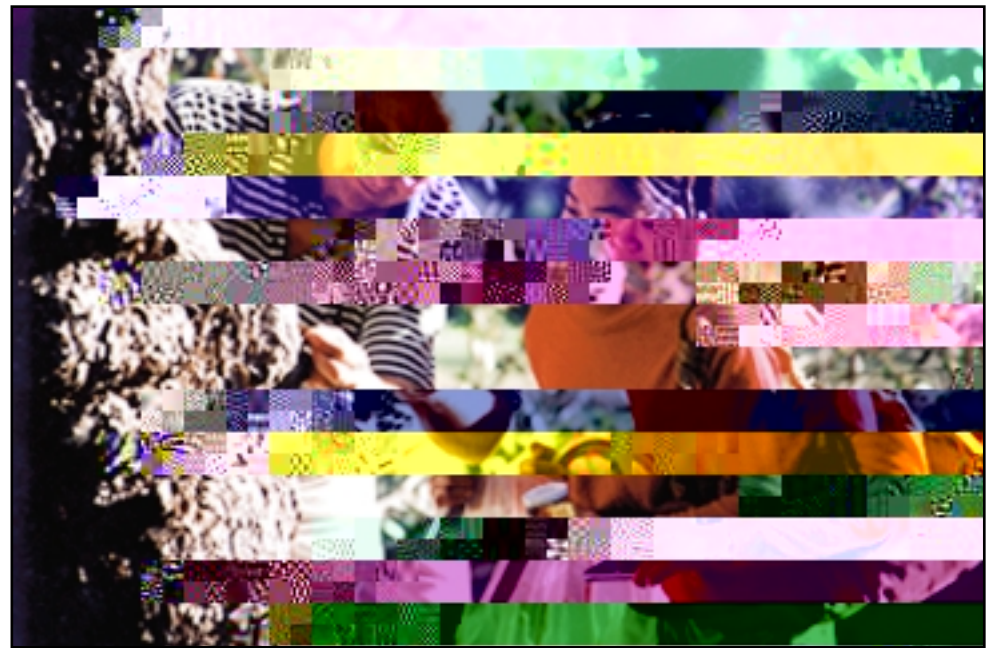
On a completely different tack, Lesley Williams (English) discussed how literature and story telling embracing the environment can be a

potent aspect of how we change our relationship to the land.

Shane Sody (Law) heightened the slow reaction of the legal system to ensuring that Blue-fin tuna farming is ecologically sustainable, although it has skyrocketed to 92% of the value of all SA aquaculture in the past decade.

Irene Neri-Arboleda (Applied & Molecular Ecology) caused delight with her illustration and discussion of mapping the movements of the exquisite Philippine Tarsier by Geographic Information Systems. This baby-sized primate with eyes like moons, bat-like ears, long thin arms and legs with round pads on the ends of the fingers and toes, survives in small patches of mid-succession forests, but is vulnerable to clearing activities. It covers over a kilometre in its nocturnal ramblings, and seems to prefer the more complex environments.

From the discussion of domestic water use in Australia by Bernie Foley (Civil & Environmental Engineering), it appears we consume over five times the basic water requirement set by the UN, and could easily cut it to more sustainable levels by installing water conservation measures. Consumption does not relate to cost (although the NT does have the highest consumption and the cheapest water), and planning of water provision often ignores conservation measures in favour of more expensive recycling or other approaches. Interestingly, domestic consumption accounts for less than 10% of Australian water use.



Jenny Indarjani (Environmental Biology) closed with a fascinating account of how little research has been done into the biota (other than plants) of mangroves in South Australia, although they are economically important in terms of their fish nurseries, and such intriguingly diverse biological environments (with both terrestrial and marine habitats) that they ought to be up there with rainforests! Her research is focusing on mud-dwelling creatures in different locations

in St Vincent's Gulf.

Held in the Bentham Lecture Theatre, audience numbers were nearly double last year and there were animated questions and debate with almost all speakers. The conference seems confirmed as an annual event which will help underline Adelaide University as a wide-ranging leader in postgraduate environmental research and study.

—Marcus Beresford

## Bat caves and burrows are hives of co-existence

INSECTS may be the smallest members of the animal kingdom but they have an enormous and unique role to play in our environment.

It's a role being investigated by honours students Judy Bellati and Tim McCullough, who are delving into the importance of invertebrates in fragile environments and their co-existence with other creatures.

Mr McCullough, a Bachelor of Environmental Science student, is focusing on a unique relationship between species of spider and a lizard which was once thought to be extinct.

The rare Adelaide pygmy blue tongue lizard was rediscovered near Burra in 1992. The lizard actually lives underground, in burrows constructed by spiders. Mr McCullough's research will involve monitoring 400 spider burrows to study their ecology, population and dynamics.

The South Australian Museum, which started a recovery program for the lizards with the Adelaide Zoo, provided additional funding for Mr McCullough's research. He said the funding had been invaluable:

"I've been able to use terrific equipment and facilities at Burra to study the spiders, including

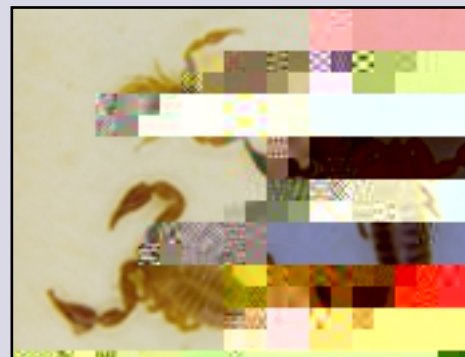
an optic fibrescope which has made monitoring the burrows much easier and less invasive," Mr McCullough said.

Ms Bellati, an Agricultural Science student, has chosen to study the ecology of bat caves in the world heritage-listed Naracoorte Caves. Her research focuses on guanophilic invertebrates—insects which feed on a fungus which grows on bat guano (faeces).

The large bent wing bat has recently been identified as a new species, and Ms Bellati's research into the ecosystem of the caves is laying the foundations for knowledge of how the bats and insects co-exist in this environment.

She said her aim was to discover what species of invertebrates live in the cave and to monitor any changes over a 12-month period. Her data will assist park rangers in developing a system of monitoring the caves' inhabitants. Ms Bellati's project has also received additional funding, from the Department for Environment and Heritage. She has also benefited from the use of five remote video cameras within the caves.

"There are 400,000 bats within the cave and I have to be very wary of not disturbing them when I collect insect samples each month," Ms Bellati said.



*Guanophilic invertebrates.*

"The video cameras have allowed me to monitor the bat environment without impacting on the species."

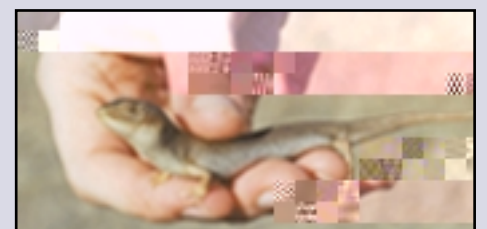
Both students are supervised by Dr Andrew Austin from the Department of Applied & Molecular Ecology.

The students said studying invertebrates was increasingly important for understanding complex and fragile ecosystems. They both agreed that the best aspect of their work was that it would contribute to future conservation efforts.

—Sally Raphael



*A burrow-digging spider.*



*The rare Adelaide pygmy blue tongue lizard.*

## Adelaide graduates given a taste of UK's water industry

THREE Engineering graduates from Adelaide University have been given an opportunity to work for 12 months with Thames Water, England's largest water company.

Thames Water is a parent company of United Water, who is responsible for the management, maintenance and operation of Adelaide's water and wastewater treatment plants and underground pipe network.

Mr Matthew Rees, Ms Liz Roder and Ms Skye Widdows work for United Water and gained the opportunity through United Water's graduate development program. Ms Roder and Ms Widdows completed degrees in Civil & Environmental Engineering at Adelaide in 1997, while Mr Rees graduated from Chemical Engineering in 1998.

He departed Australia late last month to commence work with Thames Water's Research and Technology division at Reading, approximately 45 minutes from London. Mr Rees will initially be working in the wastewater field, looking at sludge treatment and disposal. Previously at United Water, he was involved with research and development of membrane pilot plant trials and undertaking project management and contract administration. Mr Rees hasn't been overseas before and said he was looking forward to the many challenges that lie ahead.

Skye Widdows returned to United Water in August after 12 months in the UK where she was also based in Reading. She was part of a project group working on detection, control and reduction of water leakage from Thames Water's 30,000km of water pipes.

"Working overseas was a tremendous opportunity for me and gave me experience and understanding of new methods and techniques which could be applied to our operations here in Adelaide," she said.

Following in their footsteps, Liz Roder will be leaving Australia in January to also work in Reading for 12 months. She will be continuing on the work performed in leakage management as well as being involved with water filtration research.

United Water said it placed a high importance on providing its graduate engineers with a well-rounded knowledge of the many aspects of the water industry. International learning opportunities such as these were very important in creating technology transfer and bringing new skills and technologies back to South Australia, it said.



*Engineers with future, present and past opportunities (from left) Liz Roder, Matthew Rees and Skye Widdows.*

# CAREER PATHS

## THE NEW FACE OF TELEVISION SCIENCE

FOR SCIENCE Communicators, an appropriate medium is important. Radio is great if you have ideas to discuss but not much to show. Print is the only medium that readers take at their own pace, so graphs and diagrams sit well there. For many, television is the most seductive.

Television is demanding. It must have strong visual material to work. It needs good presenters who can work to several cameras at once. But it also offers much in the right hands and, at its best, can be commanding and memorable. For children, it can be formative.

Adelaide University graduate David Lampard is about to become one of the new faces on Australian television. He will be a presenter on 'Y?', an engaging and entertaining science program made especially for children.

The show has a cast of five: a host, three reporters, and a science presenter. As the last of these, David presents around three segments per show—a series of experiments which explore all sorts of fascinating scientific concepts, from the psychology of memory, to the biology of touch and the chemistry of a permanent crease.

David completed a Bachelor of Science degree at Adelaide University in 1994, with majors in physiology and psychology, but he almost never started it.

"For many years, I simply had it in my head that I was going to just sing for the rest of my life, that I was going to be a performer," David said. "But I decided to get a science degree first, and see where music could lead me later. I'd always been

fascinated by biology and the human body, so a science degree was an easy second choice."

He did, however, manage to convince the Science Faculty to allow him to study a voice subject with Performing Arts towards the first year of his science degree. The next year he won a scholarship to study single studies voice at the Elder Conservatorium, while completing his degree.

After that, David found himself at a dead end. "I loved science, but really couldn't really see myself working in a lab for the rest of my life",

so he spent the next two years working in John Martin's, before desperately approaching one of the Adelaide University careers counsellors.

The counsellor pointed him in the direction of a scholarship course in Canberra—a Graduate Diploma in Scientific Communication, run jointly by the Australian National University and Questacon, the National Science and Technology Centre.

"I managed to get into the course, and have

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Advertisement

# Troubled waters ahead for Investigator Centre

THE INVESTIGATOR Science & Technology Centre is this month celebrating another birthday.

Since its establishment in 1990 it has hosted many exhibitions and given thousands of South Australians a chance to experience hands-on science and technology. While the Centre's aim is to demonstrate the roles that science and technology will play in the future, its own future is far from certain as it enters its 10th year.

Most States now have their own Science and Technology Centres, but the Investigator is the smallest and the least funded of them all. The Investigator depends largely on self-funding, with money coming from entrance fees and sponsorship. To get more of both means mounting bigger and better exhibitions, but the Centre is so small that many touring exhibitions are too large for the gallery, and pass Adelaide by.

Even moderately sized exhibitions require so much space that regular exhibits have to be removed and, with only one gallery, the Centre must close down to change its exhibitions over, thus losing valuable customers for weeks at a time. Other exhibitions are chosen and selected on the basis of budget constraints; a restriction which can influence the quality of the exhibitions.

Home-grown exhibitions must also be restricted; a problem for those at the Centre who are working to prepare a major display for the bicentenary of the meeting of Matthew Flinders and Nicolas Baudin, the subject of state-wide celebrations planned for 2002.

The past few years have seen more financial support coming from the state government. This year the Investigator has prepared a feasibility study which proposes a move to one of two

alternative sites, both larger than the current one at Wayville. The government has since proposed a third site. Funding for the move remains uncertain, however.

"In this new site, the Investigator would like to have more exhibition galleries and some specific classroom areas to run workshops," said Belinda Baker, the Investigator's Programs Manager. "This would allow more exhibitions to be in the centre at the same time, and draw more visitors through the door," she said.

As well as its exhibitions, the Investigator runs educational programs in Science and Technology. The Adelaide University Discovery Lab is currently home to a multimedia suite. "This has been in existence at the Centre for a couple of years now, and has contributed greatly to the programs that we can offer," said

Ms Baker. "It helped us keep in touch with technology teachers and with cutting-edge technology," she said.

Outreach programs play an important part in the Investigator's efforts to take science and technology to rural South Australians. The indigenous program has also been a great addition, "Government funding has made it possible to play a major role in taking science and technology to Aboriginal communities and schools," said Ms Baker.

As part of this program, the Investigator will this month visit Alice Springs to take part in a science and technology youth event, and visit three schools in the Pitjantjatjara lands. This is a collaborative work, with scholars from the Shell Questacon Science Circus also taking part in these visits.

—Marijke de Weerd

## Farewell to a valued member of the philosophy family

ANGIOLA Bartesaghi was a member of the University community, our friend and secretary for more than 20 years. She joined the Department of Philosophy around 1960, and her services were shared for a year or two with the Department of French. She retired in 1981 and died this year on 22 August, aged 85.

I came to know Angie only in 1974, when I took up the Hughes Chair. Angie predated me in the Department by many years. The Head of Department, when she joined it, was Professor J.J.C.Smart, later to be awarded an AC for his contribution to our subject. But she knew him, and so do we, just as Jack Smart.

I don't know of any other friendship quite like the one Jack and Angie had. Jack is somewhat absent minded, impractical, and even a little eccentric, as professors generally (and philosophical ones in particular) are all supposed to be. He is also the friendliest and most unpretentious person I know. It simply never occurs to him to stand on his dignity. Despite being a world figure in his subject, he has an endearing naivety about him that makes him, as I've said, an eccentric. In short, while he is an eminent person, he plainly needs someone to look after him. Angie saw all this at once, took it on, and revelled in it. Like most of his friends, she managed to combine a deep respect for Jack with a sense of him as someone you could sometimes laugh at as well as laugh with.

She told me with great delight, about her job interview with Jack. Despite her being a

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Open to graduates, students, staff, former staff and friends of the University.

**Your details:**

Title (Prof, Dr, Mr, Ms, Mrs, etc) .....

Former Family Name (if applicable) .....

Family Name .....

Given Names .....

Address .....

State..... Postcode ..... Country .....

Country of Brith .....

Phone Home ( ) ..... Work ( ) .....

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Adelaide University Degree(s) or Qualification(s):

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I would be interested in receiving information and details about events from the following Chapters:

- Agricultural and Natural Resource Sciences Chapter
- Chapman Association (Engineering)

- Sir Joseph Verco Dental Chapter
- Cornell Chapter (Arts/Performing Arts)
- Florey Medical Chapter
- Science and Mathematical Sciences Chapter
- MBA Alumni Association
- Roseworthy Old Collegians Association (ROCA)
- Economics/ Commerce Chapter
- Leonardo da Vinci Chapter (Italian-Australian alumni)
- John Bray Law Chapter
- The University of Adelaide Chapter of Australian Alumni Singapore
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**GLEN OSMOND:** 3 br unfurn house (some built ins). Close to transport and good schools. Walking distance to Waite. No pets, lawns mown, avail now. \$220 pw + bond. Ph 8379 4869.

**SECOND VALLEY:**

Holiday house avail for rent over school holiday period. Short walk to beach, 3br. Ph Dianne 8379 6510.

**HYDE PARK:** 3-4 br furn home. r/c aircon, security,



**12noon Plant Science Seminar:**  
Three-Dimensional Structures of

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## Academic Promotions Update

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The processing and ranking of applications for each of the levels has progressed to the following stages:

**APPLICATIONS FOR PROMOTION TO LECTURER (LEVEL B) AND SENIOR LECTURER (LEVEL C)**

Faculty of Agricultural and Natural Resource Sciences - applicants have been advised.

Faculty of Science - applicants have been advised.

Faculty of Humanities and Social Sciences - recommendations

## Women's Professional Development Network (WPDN)

The WPDN is a development initiative for all women general staff of the University of Adelaide. It focuses on issues affecting the professional staff of the University of Adelaide. It focuses on issues affecting the professional staff of the University of Adelaide.

## Student Evaluation of Teaching

The Advisory Centre for University Education provides a service to all University teaching staff who wish to evaluate their teaching. This service is known as Student Evaluation of Teaching (SET). Staff wishing to use SET for the first time should call the Evaluation Service Office, ext 33496/33023, for a copy of the package.

The SET package contains a User Manual, appropriate evaluation request forms, and some information concerning applications for promotion and tenure. The service is free of charge and is available to all teaching staff of the University.

Due to high demand for SET questionnaires, and to the fact that the Evaluation Service is currently staffed by one full-time person only, please send your evaluation request forms to the ACUE at least four weeks prior to the planned date of your evaluation.

It is ACUE policy that all requests are placed in a queue determined strictly by date of receipt. Requests which do not allow sufficient lead time may not be processed. We recognise that occasionally there will be circumstances where a staff member will need to request an evaluation service but cannot give the required minimum notice. In these cases a service will be provided within 5 working days and a priority fee of \$75 charged.

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## Dental treatment for University staff and students

The Colgate Australian Clinical Dental Research Centre (CDRC) is a state-of-the-art clinical research facility located in the Adelaide Dental Hospital building (adjacent to the Royal Adelaide Hospital and IMVS) and is a unit of Adelaide University and the Dental School.

Emergency dental treatment and routine dental care is available at the CDRC. All patient treatment is carried out by qualified staff. Competitive rates and EFTPOS facilities are available. Concessions are also available for holders of University cards. Convenient public transport access is available.

For further information or to make an appointment for treatment, please contact Freya on 8303 3437.

**Competitive Rates...Convenient Access**

Dental School  
Adelaide University

## Occupational Health & Safety - 2001

### Studies in Occupational Health & Safety

The Department of Public Health of Adelaide University jointly offers postgraduate courses in occupational health and safety with the University of South Australia.

- The **Graduate Certificate in Occupational Health and Safety Management** covers the essentials of OHS law and management practice, occupational health, hygiene, ergonomics, safety issues and data analysis.
- The **Graduate Diploma in Occupational Health & Safety Management** provides in depth understanding of OHS management systems, interpretation and application of OHS law, occupational health and hygiene practice and safety technology.

- The **Master of Occupational Health and Safety** offers advanced level studies in specialised areas of occupational health and safety, together with an opportunity to undertake research.

Applications are encouraged from people who have an existing graduate certificate or graduate diploma in the occupational health and safety field (appropriate status can be granted towards the masters degree).

For further information and application forms contact: Linda Code on 08 8303 3572; email - <linda.code@adelaide.edu.au> Liz Bluff on 08 0302 0351; email - <Liz.Bluff@unisa.edu.au>.

Closing date for applications: Friday 24 November 2000. World Wide Web URL: <<http://www.health.adelaide.edu.au/PublicHealth/>>.

### **Research Grants & Fellowships**

The following is a sample of grant, fellowship and other research funding schemes currently available for application. The complete listing, together with guidelines and application forms for some of the major schemes, are available at: