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NEWS FROM THE UNIVERSITY OF ADELAIDE

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Queen's adviser to develop University horse course

FOR THOSE who enjoy horses as a hobby, they are a relaxing pastime. But for those looking for a career in the horse industry, it requires more than a little nous.

That's according to renowned veterinary clinician and animal science lecturer Dr Robyn Woodward. With skills sought after the world over, Dr Woodward believes many of the next generation of would-be stars entering the horse world are inadequately prepared for the demands and pressures associated with the fast-moving industry—worth \$15 billion to Australia's economy each year.

Recently appointed as course coordinator for the Diploma in Horse Husbandry & Management at the University of Adelaide's Roseworthy Campus, Dr Woodward is turning her remarkable talents towards improving the skills of the next generation of people entering the horse industry.

Dr Woodward's main interests are in equine artificial breeding and exercise physiology, including the monitoring of horse fitness. This has led to several years working at the Scone Veterinary Hospital during the southern hemisphere breeding season, and then spending the northern hemisphere breeding season working with eminent veterinarian Dr Peter Scott-Dunn in Berkshire, UK.

While overseas, Dr Woodward worked with everything from stud to performance horses, including Her Majesty Queen Elizabeth II's carriage, hunting and polo horses. In 1991 she accepted a position as lecturer in Animal Production and Veterinary Clinician in the horse, cattle and sheep enterprises at Orange

Agricultural College, before finally moving back to South Australia.

"I have been involved with the industry in several different capacities, both in Australia and overseas," she said.

"This has enabled me to understand the ins and outs of the horse world and how the education system can best produce quality graduates who will be in demand by the industry."

Dr Woodward is currently working to change the focus of the horse husbandry and management course at Roseworthy so that it has a greater business emphasis while still retaining and increasing its practical strengths.

"I believe students should graduate with good practical horse-handling skills along with a deep understanding of the horse industry and expertise in business management and strategic marketing," she said.

"It is also very important to have an appreciation of environmental management, pasture production and management and nutrition. I also hope to introduce components in horse physiotherapy and basic equine massage."

As well as improving elements of teaching, Dr Woodward hopes to be able to foster new relationships with key trainers and industry groups as well as developing closer links with some leading South Australian horse enterprises, such as Lindsay Park, the SA Harness Racing Association and the South Australian Jockey Club.

While the students can already decide to enter the National Coaching Accreditation Scheme (NCAS) level 1 during the course, another bonus will



Dr Robyn Woodward—quality education in the horse industry.
Photo courtesy of Roseworthy Campus

be the opportunity for them to become involved in commercial enterprises through the development of new services to the public at Roseworthy, such as the use of frozen semen and embryo transfer.

"We have a great team working to support the students, both academically and at competitions. Our plans for the future will be a wonderful plus for the course and will lead the way in quality education in the horse industry," Dr Woodward said.

Dr Simon Maddocks, Director of

Roseworthy Campus, believes Dr Woodward's appointment is an integral part of the campus's ideal to attain excellence in both research and training.

"We are very excited about Dr Woodward joining the horse section team and want her appointment to continue our commitment to our students, industry and the general public, ensuring we offer relevant research and well-trained graduates who can make positive contributions to industry," he said.

—Elizabeth Butler

Graduation Dinner a first for Uni

FOR THE FIRST time ever, the University of Adelaide will hold a formal Graduation Dinner for departing international students later this month.

Some 430 undergraduate and postgraduate international students are expected to complete their courses in 1998, including the first large cohort from the Sepang Institute of Technology (S-I-T) twinning project in Malaysia.

The Graduation Dinner will be held on Sunday, 29 November at 6.30pm in the Banquet Room, Hyatt Regency Hotel.

This year the University of Adelaide experienced its largest ever intake of international students—more than 560 in total. Among them were almost 200 students from S-I-T.

All staff who have been closely associated with the teaching and support of international students are urged to attend the dinner, which is expected to become an annual event.

Tickets for staff members and graduating students will cost \$10 each and are available from International Student Support Services, Level 6, Wills Building, tel 8303 4828.

Cutting edge work a winner

THE UNIVERSITY OF ADELAIDE'S role in establishing a thriving biotechnology industry in South Australia has been recognised with a national award.

The University's Department of Biochemistry and its spin-off companies have won the Business/Higher Education Round Table's inaugural award for Outstanding Achievement in Collaborative R&D.

Three successful companies, employing more than 200 people directly and indirectly, have grown out of the department's early recognition that the biotechnology offered enormous economic and employment opportunities.

The three companies—BresaGen Ltd, GroPep Pty Ltd, and Bresatec Pty Ltd—are all at the cutting edge of various aspects of biotechnology and are producing big benefits in terms of import

replacement and export income.

GroPep has commercialised a range of products based on insulin-like growth factors with a view to producing therapeutic products for humans. BresaGen produces animal growth hormones, human protein therapeutics, and transgenic animals including pigs with improved production characteristics and sources of organs for transplantation into humans. Bresatec produces radio isotopes and enzymes for research purposes.

The University's Professor of Biochemistry, Peter Rathjen, said the award recognised the commercial and scientific successes growing out of his Department.

He said the work had attracted national and international investors, provided important training for young researchers, and had encouraged research collaboration between University researchers, hospitals and industry.

"Commercialising intellectual property in emergent, high technology industries has proven to be problematic in Australia," he said.

"The model provided by the formation of these companies has attracted a lot of interest because it safeguards the commercial and academic interests involved."

The Vice-Chancellor, Professor Mary O'Kane, said the award was just recognition for the work of the University of Adelaide's world-class biotechnologists and their partners.

The university's Business Initiatives from Graduates program won an Honourable Mention for Outstanding Achievement in Collaboration in Education/Training. The program helps graduates develop good ideas for innovative products, processes or services into businesses.

—David Washington



Peer Review - Yes or No

On 11 November the Higher Education Section in *The Australian* carried a lead article which summarises comments made by Professor Jan Reid in a speech delivered at the University of South Australia. She referred to a so-called draft green paper prepared by the Department of Education, Training and Youth Affairs, which proposes that the role of the Australian Research Council (ARC) be significantly altered and that new block funding mechanisms replace existing arrangements. The changes, if implemented, would see an end to the existence of the main competitive funding source supporting basic research, and to the main national competitive funding determined by international peer review.

Professor Reid claimed in her talk that Australia's established research universities would be favoured under the new funding schemes. I have not yet seen any details of how research support would be distributed between universities, so it is hard to know whether this would be the case. Indeed it is not obviously so. The history of distributive mechanisms reveals that money is often moved out of the "sandstones" in order to redistribute it to the newer institutions. What concerns me most however is the loss of peer review as the mechanism for funding distribution (and the consequent loss of Australia's credibility in the international research community). I am also concerned about the loss of the funding role of the body that explicitly funds basic research. I believe basic research is the most essential precondition of a knowledge-intensive society, and organisations which excel at basic research are among some of the most precious assets of a contemporary society. Here it is worth noting that universities account for 25% of Australia's expenditure on research and development. And universities are collectively responsible for much of Australia's basic research.

Peer review, which has been the mechanism used for distributing much of the research funding in Australia, needs to be managed carefully if it is to achieve the best results. During recent years, Ross Milbourne, I and other Chairs of the Research Grants Committee of the Australian Research Council have worked hard to improve the peer review system. It is crucial to find true peers to do the reviewing. Combining the comments from different reviewers can on occasion be tricky. It is important that the track records of researchers are weighted according to opportunity. Peer review carried out well has the advantage of providing useful feedback to those applying. It also exposes Australia's emerging research to the international community and provides accountability to government. I firmly believe that the many advantages of the peer review system outweigh the disadvantages.

The University of Adelaide has provided strong support to the ARC over a long period of time, with many staff members serving on the Council and its Committees and Panels. I think it would be a great pity if the Commonwealth Government were to abandon its major peer-reviewed research funding scheme without a detailed examination of the benefits and problems. In fact the Industry Commission Report on Research and Development, chaired by the current Chairman of the Productivity Commission, Mr Gary Banks, has already looked into these issues. I think this document would be good reading for the Prime Minister and Dr Kemp. At a time when the Government is moving to make our society more knowledge-based, some basic research would be a wise first step.

MARY O'KANE

COMMENTARY

INVESTING IN HIGHER EDUCATION

In its leader of May 27, 1997, the *Australian Financial Review* claimed that "...investment in human capital is the most important way advanced economies can lift productivity".

by
Professor Jonathan Pincus
Economics

dollars less. This is the sense in which university education, in three and a bit years, adds a quarter of a million dollars to the person.

I agree: the wealth of nations is knowledge, some of it implicit in our social arrangements, but much of it explicit and explicitly taught and learned: knowledge of self, knowledge of others, knowledge of the impersonal world, knowledge of ideas, knowledge of knowledge, of ways to know. The wealth of nations is mostly carried around in the heads of the people (although the University Librarian will not want me to forget his domain).

However, the *AFR* then went on to make claims about the appropriate funding of undergraduate education, which I dispute. Grants to universities for undergraduate education, instead of being commended as an investment that benefits the economy, were deprecated as "middle class welfare". The *AFR*'s reasoning was that, because students themselves gained so much financially from their own education, no public support for undergraduate education was needed. The editorial also implied that the Commonwealth Treasury spends more on tuition grants to universities than it receives in return from graduates.

To examine the validity of these judgments, I made some estimates of the financial consequences of Commonwealth funding of Australian undergraduates. What is the value of the learning? Who pays for it and who benefits from it? The results of the calculations, reported in a paper delivered recently at the Conference of Economists, are summarised here.

Consider a young person who, after completing high school at age 17, ceases education and goes to work in full-time employment. With a job, he or she obtains some financial independence, possibly to leave home for a life freer of parental scrutiny; or to stay at home and support the family and still have some money to spend.

At the end of, say, three or so years, what would they have? Maybe some savings in the form of money or a car; and they would have learned something about the world of work, especially relatively unskilled work.

If, however, in three years this young person had been able to create an asset worth a quarter of a million dollars, then that rightly would be regarded as quite an achievement.

Yet, this is exactly what the average undergraduate does: starting with high school qualification, an undergraduate goes to work at building an asset which is worth over a quarter of a million dollars in about three years.

My figuring relates to the average undergraduate as reported in the Australian census, and not specifically to graduates of the University of Adelaide. Many Adelaide graduates have complete undergraduate degrees of length greater than 3.3 years, which is the average length of an undergraduate course. Many have undertaken post-graduate education. Many will earn more than the average graduate. My calculations relate to a typical or average undergraduate, going to university straight from school.

On average, graduates earn more than do those who finish formal education with high school. Over a lifetime, the average graduate earns almost \$900,000 in today's dollars. That is, it would require a bank deposit of \$900,000, paying 5% real interest, to provide enough capital and interest to draw down to generate the annual income of the average graduate over a working life.

While the graduate earns \$900,000 over a lifetime, the average non-graduate earns a quarter of a million

Economists call these sorts of calculation the estimation of "human capital". The average graduate's human capital is \$900,000, of which university education is responsible for about a quarter of a million. (The word capital comes from the Latin caput or head, and your human capital is what you carry around in your head.)

In my conference paper, I report that the general picture remains the same on adjustments made on the assumption that, even if they had not attended university, those who do in fact go on to university study would have earned more than the average non-graduate.

Who gets the quarter of a million? Roughly speaking, it is shared 50/50 between the graduate and the Commonwealth Treasury. What I mean is that, after recouping its outlays on undergraduate education, the Commonwealth Treasury collects another \$100,000 in extra income taxes; extra, that is, above the income taxes paid by the non-graduate. (HECS repayments are small in comparison with regular taxes.)

Students, their families and friends, and government, invest in human capital and government collects half of the financial benefit. Now, government is partner in all legitimate, taxpaying, money-making activities, but that fact alone is insufficient reason for the Commonwealth Treasury to invest in all such activities. However, an economic justification for public investment is that, without adequate and appropriate government investment in education, there will not be enough education; and the investment pays off. That is to say, in the absence of government assistance, many persons for whom education spending would yield a great net benefit for society will not receive any education or enough education.

Importantly, equity grounds and economic calculation point in the same direction: the sorts of arguments that are commonly made in favour of public support for higher education on the basis of equity, lead to very similar policy conclusions as are supported by argument solely based on grounds of economic efficiency.

Investment in human capital is an unusual investment. A student cannot sell 'shares' in him- or herself to the stock market, nor readily borrow on the security of the yet-to-be-formed asset. For this and associate reasons, there is greater economic scope for government to be active in facilitating and encouraging investment in human capital than there is economic scope for government to assist most other legitimate, taxpaying, money-making activities, in all of which government is a partner. Educational investment is different.

As well as enhanced earning power, higher education brings personal benefits in other forms. Not only does higher education develop the mind and spirit, but it also opens up opportunities for the kinds of employment that allow for further development of the mind and spirit. For many people, the most significant effect is that they become more accomplished persons, more interesting to themselves and to their friends and lovers. For others, the liberation and development of the mind primarily manifests in activities beyond family and friends, to the building and protecting what is properly called civil society of voluntary associations and actions.

This then is the ultimate argument why government should support higher education: to produce a better society and better world by ensuring everyone has an equal opportunity to contribute to that better society and better world.



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The newspaper of The University of Adelaide

Youth leader named SA's young achiever of the year

MIA HANDSHIN, University of Adelaide Arts/Law student and youth advocate, has been chosen as Young South Australian of the Year at an award ceremony once again dominated by university nominees.

A total of eight past or present University of Adelaide students were nominated in five categories for the awards.

Ms Handshin won the Mitre 10 Community Service Award and was named overall Young South Australian Achiever of the Year (sponsored by Network Ten and *The Advertiser* newspaper).

Currently in her third year of an Arts degree and her second of a Law degree, 20-year-old Ms Handshin is well known for her work as a youth leader who has been involved in numerous national and State committees, conferences, councils, advisory programs and groups, most notably the Youth Parliament and the Constitutional Convention.

A founding member of the Tangent Youth Action Group, Ms Handshin has also been active in fundraising for charities and is a columnist on



Young achiever of the year Mia Handshin—leading a strong team of nominees from the University of Adelaide.
Photo courtesy of Mia Handshin

youth affairs for *The Advertiser*. She was recently named in the list of South Australia's 101 most influential women.

Also winning in his category was conductor and composer Mr Kynan Johns (Medibank Private Arts

Award). Mr Johns is the winner of many awards, including ABC Young Conductor of the Year, and has a Bachelor of Music with Honours from the University of Adelaide.

He has conducted the Tasmanian, Adelaide, Melbourne and Queensland Symphony Orchestras, as well as studying and being invited to lead the Tel Aviv Academy Orchestra in Israel.

One in three of the nominees for this year's Young Achiever of the Year Awards were either past or present students of the University of Adelaide.

Nominees included: Ms Rachel Barratt (Unilever Environment Award), Mr Grant Doyle and Ms Niki Vasilakis (Medibank Private Arts Award), Mr Timothy Goh and Mr Nam Nguyen (Minister for Youth Affairs Career Achievement Award), and Ms Rebecca Whyatt (SA Water Science & Technology Award).

The winners in each category of the awards are automatically nominated for Young Australian of the Year, with the national winner announced in January next year.

—David Ellis

Captive lives the focus of public lecture

THE TRAGIC tale of indigenous Australians who were taken from their homes and put on show in the US and Europe last century will be the focus of a new public lecture in Adelaide.

On Friday, 4 December Ms Roslyn Poignant, an Australian-born scholar based in London, will deliver a public lecture on the research associated with her exhibition "Captive Lives: Looking for Tambo and His Companions" which is coming to the South Australian Museum in February 1999.

Ms Poignant, a Visiting Fellow at ANU's Centre for Cross Cultural Research during 1997, comes to Adelaide as a keynote speaker at the Cultural Studies Association of Australia national conference, co-hosted by the University of Adelaide, University of SA and Flinders University.

Tambo first came to public attention in 1993 when news flashed around the world that the mummified body of a North Queensland Aborigine had been found in the basement of a funeral home in Cleveland, Ohio. Two of Tambo's descendants and a senior elder of the Palm Island community travelled to the US to repatriate his remains. He was eventually laid to rest in his own land exactly 110 years after his death in 1884.

What happened to Tambo and his companions has been of ongoing interest to Ms Poignant, who is also preparing a book on the subject.

Tambo was one of nine Aborigines removed from Palm Island, Hinchinbrook Island and the mainland of North Queensland in 1883 by American showman R.A.

Cunningham, an agent for P.T. Barnum's circus. Dispossessed of their cultures and language and dispersed from their lands, Tambo and the others performed in circuses, dime show museums and national exhibitions in the US and Europe for some for 16 years, steadily reducing in number.

Ms Poignant's research attempts to reconstruct the personal and local histories of these people. Her public lecture, drawn in part from consultation with Aboriginal communities, will effect a kind of reconciliation through public storytelling.

The lecture will be held at 7.30pm on 4 December in room CB1-14 of the Centennial Building, University of South Australia's City East Campus. All are welcome.

—Dr Kay Schaffer, *Social Inquiry*

Trying out a different mortarboard

BRICKWORK on the University of Adelaide's new \$6.5 million Engineering and Mathematics building has begun, with the Vice-Chancellor, Professor Mary O'Kane, picking up a trowel and lending a hand.

The new building is part of the \$41 million revamp of the North Terrace campus's lower level.

A staggering 120,000 red bricks will be used on the five-storey building; the CSR-supplied bricks ("Navarino Red") are in keeping with the colour and texture of the bricks on the existing adjoining buildings.

Integrated Construction started site work in June this year, with the building expected to be completed by August 1999.

The new building will house offices, seminar rooms and computer design suites for the faculties of Engineering and Mathematical & Computer Sciences.

—David Ellis



NEWS IN BRIEF

'GARDENS' WINS ANOTHER AWARD

Gardens in South Australia 1840-1940 (*Adelaidean*, 26 October, p.6) has won another award for its research scholarship. The report, prepared by Dr David Jones and Dr Pauline Payne, with sponsorship from Heritage SA and the City of Adelaide, has won a Commendation Award in Planning Scholarship from the Royal Australian Planning Institute (South Australian Group) at their annual awards.

HELPMANN ACADEMY SUMMER SCHOOL

The 1999 Helpmann Academy Summer School with places for 60 participants will be held from 8-10 February at St Mark's College.

The intensive three-day program of workshops, seminars and discussions gives ambitious graduates the chance to meet arts industry professionals in an informal environment.

Speakers include national and international experts from theatre, music, visual arts, media, business and career management.

The school is open to graduates from all Helpmann Academy partners. For further information, contact Sheila Bryce, tel 8303 3692, fax 8303 4406.

SOCIAL SCIENCES FELLOW

Professor Richard Pomfret, head of the Department of Economics, has been elected a Fellow of the Academy of the Social Sciences in Australia.

Fellows of the Academy are elected on the basis of having made a substantial contribution to one or more of the Social Sciences, recognised internationally.

Professor Pomfret is recognised as one of the world's leading experts on Central Asia and has acted as an adviser to the United Nations, the World Bank and the Australian Government.

Recently he gave keynote addresses at two international conferences on (and in) Central Asia: a UN conference (in Almaty, Kazakhstan) on reducing poverty in the region, and a World Wildlife Fund conference (in Urumqi, western China) on sustainable development in Central Asia.

Professor Pomfret's research interests currently centre on economic development and international economics. He is the author of 13 books, one of which, *The Economies of Central Asia*—the result of a year's work with the UN as adviser on macroeconomic policy to the Asian republics of the former Soviet Union—is the leading text on the subject.

CAROL WHITELOCK TALKS

The final talk for 1998 in the popular "Wednesdays at One" series organised by the Friends of the State Library takes place on 2 December. It features ABC presenter Carol Whitelock, discussing the books which have influenced her life.

The 1999 series will get under way on 3 February. Institute Building, North Terrace. Admission \$5 (\$3 concession and Friends).

Pushing the boundaries of molecular research

STARTING with what are thought to be the chemical precursors to life, two of the University of Adelaide's leading chemists are synthesising molecules in two separate areas of cutting-edge research.

While Professor John Bowie uses the chemicals to make and understand interstellar molecules which only last for a second or so, Professor Michael Bruce modifies and stabilises them with metals to try and make new materials for future use.

The two share an Australian Research Council Large Grant of \$186,000 over three years to push the boundaries in their respective but related areas of research.

Professor Bowie is interested in organic molecules found in interstellar space and circumstellar gas and dust envelopes which surround red giant stars. Some 118 interstellar and circumstellar molecules have been detected by spectroscopic methods.

Interstellar refers to anywhere in space, while a circumstellar envelope refers to the area directly around a star or an exploded star. When a star implodes a whole series of chemical reactions take place in extremely high temperatures creating many precursors for molecules which are in the dust clouds surrounding the exploded sun.

"Some of these molecules may be the precursors to amino acids which are the first building blocks of life," said Professor Bowie.

"Well known scientist Fred Hoyle has been saying for years that the chemicals of life originated not on the primitive earth but in intergalactic space."

Professor Bowie's research group is making the molecules found in the circumstellar envelope in the laboratory—some for the first time.

"Very few people can actually synthesise these molecules because they are not the sort of thing you can make at the bench in a chemistry laboratory," Professor Bowie said.

"These compounds are very transient species. They may only live for a few seconds at the very most and have unusual structures. This work could not be done without access to the world class technology available at the University.

"Very simply, we first synthesise the chemicals in the laboratory which we use as precursors to form these molecules. We then put them into the

University's mass spectrometer (the only one like it in the southern hemisphere) and we ionise them and make negative ions which means we make them negatively charged.

"We can then convert these negative charged species into neutrals by stripping an electron off them in the mass spectrometer. It is the neutrals which have been detected in the circumstellar envelope. Using supercomputers we calculate their structures and examine their behaviour in the mass spectrometer.

"Our aim is essentially to make what has not been made before. These molecules do not have any commercial application because alone they have no extended stability, but once they are stabilised with metal for example, they are very electron rich which means electrons can flow along between the molecule link which can act like a switch or a conductor."

Enter the research of Professor Bruce.

Using the same chemical precursors to synthesise molecules, Professor Bruce is seeking to trap those molecules—normally highly reactive in the free state—and stabilise them.

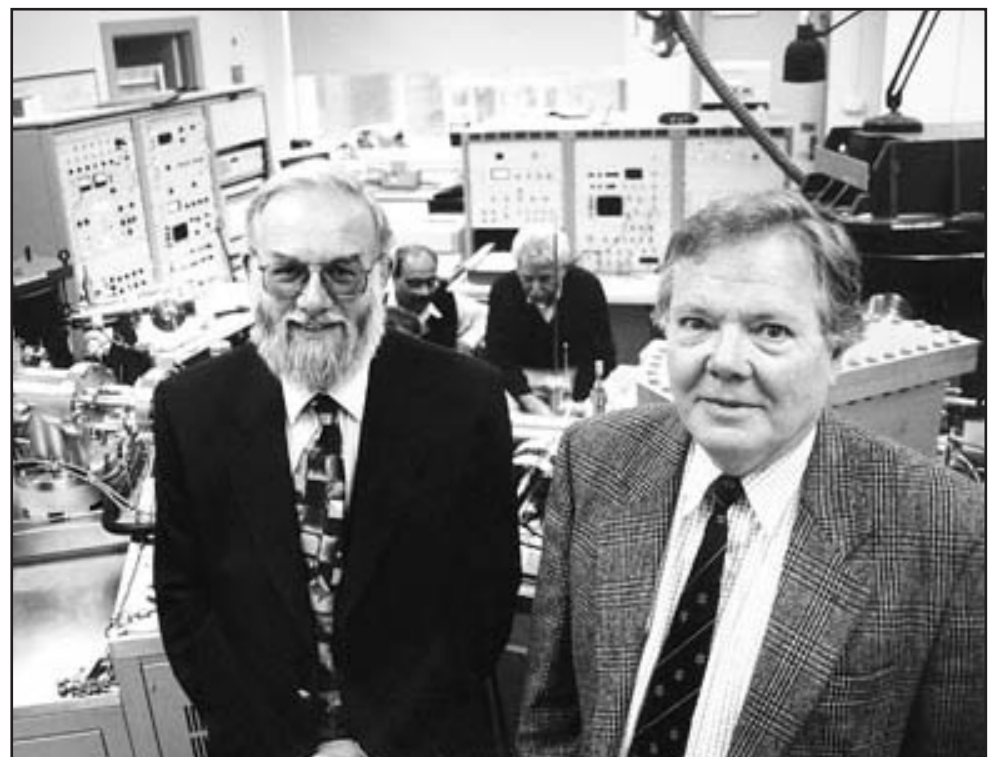
"We've discovered that molecules which contain two metal atoms linked by a chain of carbon atoms communicate electronically, so the carbon atoms are behaving like a wire," said Professor Bruce.

Collaborating with laboratories interstate and overseas, this discovery was confirmed through work conducted first in Moscow, then in Canberra, Melbourne and Rennes in France. To assist the research further, Professor Bruce is working with a theoretical chemist, Professor Jean-Francois Halet from the Université de Rennes.

Stabilising these molecules by linking them between a chain of carbon atoms and adding a metal atom at both ends has meant the creation of new materials with huge potential to be used as conductors or switches in various electronic apparatus.

With such potential for commercial application, the research is highly competitive. Professor Bruce has been making these molecules for three years with only three or four other groups in the world also making them.

They are now looking at changing one or two of the carbon atoms with other elements such as boron, nitrogen or oxygen to see what effect this has on changing the properties in terms of electronic transmission.



Professor Michael Bruce and Professor John Bowie—"Our aim is essentially to make what has not been made before." Photo: David Ellis

"Chemistry is the science of change," said Professor Bruce.

"We are interested in finding out how one material changes into another—that's how we make progress and make new materials.

"And although my particular expertise is not to make molecular wires to attach them to bits of a computer for example, the principle that this could be useful for this sort of thing is certainly guiding our work.

"At the same time we don't really know the extent that this research could be useful because we haven't explored all the options yet.

"All of us who are involved in basic or fundamental research have a tremendous sense of satisfaction when we make a discovery that means we now know something more about what is happening. This is really what keeps us going."

—Rebekah Washington

PhD thesis wins Woolhouse prize

DR PAUL NELSON has been awarded the coveted Harold Woolhouse Prize valued at \$1000 for the best PhD thesis submitted to the Faculty of Agricultural & Natural Resource Sciences in 1997.

Entitled "Organic Matter in Sodic Soils: its Nature, Decomposition and Influence on Clay Dispersion", his work was deemed to have been the best on the basis of reports of external examiners of the theses, refereed publications and other measurable attributes of quality.

Dr Nelson graduated from the University of Adelaide with a Bachelor of Agricultural Science in 1987 and after working for several years was successful in winning a scholarship with the CRC for Soil & Land Management, enabling him to complete his PhD with the Department of Soil Science at the Waite Campus.

Dr Nelson now works in Queensland with the Bureau of Sugar Experiment Stations, in a position funded by the CRC for Sustainable Sugar Production.

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Cancer links to mobile phones examined

FEW RESEARCH projects have the potential political and economic ramifications of the University of Adelaide/Institute of Medical and Veterinary Science (IMVS) study into the health effects of radiation emitted from mobile phones.

The \$1million study—beginning in February 1999—is being watched closely by governments across the world, groups such as the World Health Organisation, as well as the massive global telecommunications industry.

The study, funded by the National Health and Medical Research Council, will be the most sophisticated and comprehensive examination of the biological effects of low level radiofrequency electromagnetic fields yet undertaken.

The work is being carefully monitored by an international panel and experiments will be conducted in a "closed" IMVS animal laboratory. Workers enter the lab through an airlock (after changing all of their clothes), everything going in and out is sterilised, and the air is filtered.

Inside the lab, a vast colony of transgenic and "ordinary" mice will be subject to one hour of electromagnetic radiation—in comparable amounts to human mobile phone users—five days a week for two years.

The transgenic mice, which arrive from New York in February, all have a tiny piece of human DNA which makes them susceptible to lymphoma. This susceptibility will highlight any effects of the radiation on the cells of the animals.

The study will be "double-blinded". The technicians and scientists working on the study will not have any way of knowing which mice have been receiving radiation, and which are part of the control group. None of the research team have worked on previous studies into this issue undertaken at the IMVS, to ensure objectivity.

The work is due to be completed in April 2001.

Professor Barrie Vernon-Roberts, Professor of Pathology at the University of Adelaide and Director of the IMVS, said the great care taken in the design of the study was a reflection of the enormous implications of the work.

"If this study does find that exposure causes or contributes to tumours in the entire animal, then the work will be scrutinised very closely," he said. "It's extremely sensitive."

Dr Tim Kuchel, the Head of the IMVS Veterinary Services Division, agrees.

"There must be no cause for criticism in the way this study has been conducted and designed," he said.

The system for exposing the animals to the radiation is meticulously designed. Looking similar to a ferris wheel, the animals are kept at a uniform distance from the exposure source.

Electromagnetic radiation is emitted from a wide range of common appliances including televisions, computer screens, microwave ovens, radios and power lines. Mobile phones emit mid-range levels of such radiation compared with other appliances (power lines are at the low end of the scale and x-rays are at the top). However, the fact that mobile phones are constantly pressed against the head and carried close to the body has raised particular concerns about their use.

Studies so far indicate that electromagnetic radiation may have a biological effect at the cellular level, with concerns being raised that although the radiation may not cause DNA damage, it may inhibit the capacity of the immune system to identify mutated cells, thus increasing the risk of tumours.

However, there has never been a large-scale, controlled study of the kind now being undertaken.

Dr Kuchel said a pilot study conducted in Adelaide, and published this year,



Mobile phones—new research being watched closely by governments, health groups and the telecommunications industry. Photo: David Ellis

found a two-fold increase in lymphoma among mice subjected to electromagnetic radiation. The equipment for the new study takes advantage of recent insights into how RF is absorbed, and the experimental design indicates five power settings to determine threshold levels of effect. The new study is the logical next step which will either confirm or refute the findings of the pilot study.

"There is no fully corroborated in-vitro evidence that RF produces DNA damage," he said.

"There's a suggestion, however, that RF can interfere with DNA repair mechanisms. If those mechanisms are damaged, then mutations may get out of control."

Professor Vernon-Roberts said his group had been chosen for the study

because of its unique blend of expertise and excellent facilities.

"On this campus we have a combination of the elements needed to do the work," he said.

"We have three veterinary pathologists, one of whom is also a radiation biologist. We have outstanding pathology facilities and we have major expertise in cancer research, through the Hanson Centre for Cancer Research.

"The IMVS is unusual in having medical and veterinary science together. Even in the United States, you would come across this sort of combination very rarely."

The study has been approved by the animal ethics committees of the IMVS and the University of Adelaide.

—David Washington

Getting to the bottom of global cooling

IN WHAT is widely regarded as a major coup for Australian science, Adelaide geologist Dr Brian McGowran along with two colleagues elsewhere last year secured the services of the JOIDES Resolution deep ocean drilling vessel to obtain seabed core samples from Australia's southern continental margin.

The significance of these core samples for research being undertaken at the University of Adelaide's Department of Geology & Geophysics by Dr McGowran and Dr Qianyu Li is that they will provide the key to a better understanding of the cooling of the earth's oceans, which began somewhat abruptly about 42 million years ago.

The Great Australian Bight project was scheduled to start last month, having come to the top of the list of the 100-plus projects submitted to the international Ocean Drilling Program (ODP) by researchers in recent years.

The JOIDES Resolution, centrepiece of the ODP research program, carries out six projects each year in waters up to 8 kilometres deep, adding to the global body of knowledge about the earth's oceanic geology.

"In terms of significance, ODP as a scientific enterprise rates alongside

the moon landing and the human genome project," Dr McGowran said.

"What makes our drilling project special is the fact that Australia has such a long southern coastline. This puts us in the box seat to carry out research into sea level change at the northern edge of the Southern Ocean, the engine room of global cooling."

The Southern Ocean achieved this prominence as a result of continental drift which tore apart the ancient southern continent of Gondwanaland. About 42 million years ago, as Australia drifted northwards, a circumpolar current began to flow around Antarctica. Meanwhile, the Pacific Indian throughway above New Guinea constricted, setting up a new regime of global ocean currents. From then on, heat flowed more efficiently from tropics to poles, and the earth began to cool.

Antarctica, once covered in forests of giant fern trees and southern beeches, accumulated a covering of ice and snow, and the rainforests which grew over much of Australia shrank to their present distributions as the land dried out. Sea levels fluctuated widely over this time, dropping by 150 to 200 metres in the long term.

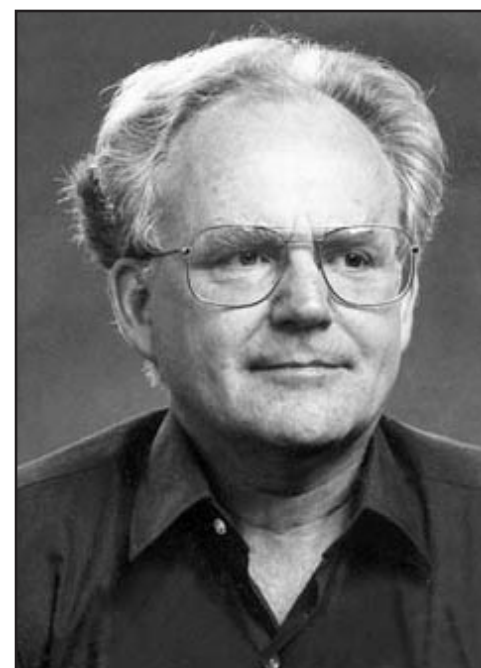
Similarly, Australia's shorelines

fluctuated, advancing over time by as much as 600 kilometres along the central southern part of the landmass to expose the vast limestone plains of the Nullarbor. These same limestones also stretch southwards under the waters of the Great Australian Bight where the ODP survey is being conducted.

The material being sought after is the fossilised remains of *foraminifera*—tiny protozoans mostly less than half a millimetre in size which still inhabit all marine environments today. Over millions of years, they have accumulated in their thousands per cubic centimetre of sediment, holding within their fossilised shells a very precise record of changes to carbon, oxygen and nutrient levels carried by ancient ocean waters.

Many samples of these fossils have been collected from sites exposed on dry land in southern Australia as well as from coastal sites and the shallow waters of the Great Australian Bight—but very few samples have yet been obtained further offshore to fill out the stratigraphic record.

Dr Li went aboard the JOIDES Resolution last month as it carried out exploratory drilling work in the region in waters up to four kilometres deep.



Dr Brian McGowran

He and Dr McGowran expect that the information obtained will provide a better understanding of the causes, extent and effects of oceanographic changes over the last 42 million years.

—Tony Cox

Ship for World Youth

HONOURS STUDENT Ms Kirsty Munro is one of a dozen young Australians selected to represent her country aboard the Ship for World Youth in 1999.

The ship, which sets sail from Japan in January, will visit several countries in Asia, the South Pacific, South and Central America over two months.

Delegates from 12 nations including Japan, Canada, the US, New Zealand and Mexico will also be aboard the ship, forming a close cultural and informational exchange.

Ms Munro was one of the 13 Australian delegates chosen out of almost 120 applicants.

Currently completing Honours in International Studies and Japanese Language at the University of Adelaide and a Bachelor of Music at TAFE, Ms Munro joins a contingent of young Aussies from a wide range of backgrounds who represent this country's unique multicultural flavour.

The Ship for World Youth is an initiative of the Prime Minister's Office in Japan and is run every two years for young people aged 20-29.

Ship-board activities include lectures and seminars on such issues as human rights, the environment and politics. Each nation also makes a presentation about the history, culture and contemporary life of their country.

While in Japan, those on the exchange

will meet with the Crown Prince and Prime Minister of Japan and will live for a short period of time with a Japanese family.

"It should be an amazing experience," said Ms Munro, who last year studied in Japan as part of her Arts degree and worked as an interpreter during the Nagano Winter Olympics.

"I first heard about the program through a student at Adelaide Uni who had been on the ship two years ago. At the time I'd just got back from Japan. It sounded like a great opportunity," she said.

Ms Munro said she was thrilled to have been chosen for the voyage, which is the most prestigious of its kind in the world.

"I'm not entirely sure what I'm going to experience, but that's not necessarily a bad thing.

"The voyage is as much about the people you meet and what you can learn from them as it is about a geographical journey. It's a journey into yourself, a personal exploration as well as an exploration of other cultures.

"It's really a year's worth of experiences all within two months, so I'm sure it's going to be very exciting."

Ms Munro said although she was yet to set foot aboard the Ship for World Youth, she would already recommend the experience to others.



Kirsty Munro—representing Australia aboard the Ship for World Youth. Photo: David Ellis

"One of the things the Ship for World Youth delegates are trying to do is bring attention to the program and promote it to other young people.

"I feel extremely lucky to have been chosen on this occasion and I think other students should have the opportunity to explore what's out there and seek out programs like this.

"We're also seeking sponsors. So far we've had some amazing responses from Two Dogs Lemonade, Yalumba wines, Jacobs Creek, the South

Australian Tourism Commission, Jetset Travel, Ansett and other sponsors.

"There's a lot of support for this program, and it's something that Australia and the people who take part in it can really benefit from."

—David Ellis

For more information about the Ship For World Youth, contact national leader Simone Sietsma on (02) 9412 2236.

Body Image Revolution

You can be a part of it—by participating in a new study.

The University of Adelaide's Department of Anatomical Sciences is seeking women to take part in a study of the Changing Size & Shape of Australian Women.

We need female volunteers aged 18 to 74 years who would be willing to spend about 30 minutes to have some body measurements and photographs of body posture taken.

Confidentiality will be ensured.

Names of participants will not be used and the face will be partially covered when photographs are taken.

The study is aimed at better understanding the "average" size and shape of Australian women today.

If you would like to assist contact Professor Henneberg or Kath Berry during office hours on: 8303 5998.

Advertisement



Put yourself in the spotlight
HOST A CONFERENCE

Hosting a conference in Adelaide can promote your research capabilities and expertise to industry, government and the community. At the same time, staging a seminar can build your professional profile in national and international circles. However if you have no experience the Adelaide Convention and Tourism Authority can help with free assistance to identify, bid for, secure and organise an academic conference in Adelaide. ACTA can assist with:

- Preparation and presentation of bid submissions to secure conferences
- Access to financial assistance schemes
- Full colour brochures that can be overprinted with conference details
- Brochures for delegate satchels
- Advice on conference facilities, venues and catering

So if you are involved in a specialised field of research or study and wish to grab the attention of the world, contact Anne-Marie Quinn at ACTA on 8212 4794.



Student teachers win prize

EXCELLENCE in teaching performance by two University of Adelaide students has been awarded by the Satisfac Credit Union.

Satisfac, which has had long associations with the teaching profession in this State, has awarded \$800 to the top two teaching performance students within the Department of Education.

Music student Ms Vanessa Abela, who taught at both a State school and an independent school, was rated as being outstanding by all her supervisors.

Their comments included: "an excellent communicator and a good listener... a first rate music educator... managed her classes with confidence and sensitivity to those individuals who required very careful handling... she not only coped admirably but developed a good rapport with students".

"Her confident presence in the classroom had the students intrigued," wrote one supervisor. "Just who was this nice person who hadn't raised her voice at them, obviously knew what she was talking about, and could give them clear directions?"

"How did she learn our names so fast—and ask us questions? She was a student teacher, wasn't she? Don't we muck around for student teachers?' ... She



Mr Mason Wiles, Ms Karen Starr and Ms Vanessa Abela—Satisfac awards for teaching practice. Photo: David Ellis

had our students pegged, and they soon worked it out."

The second award winner, Mr Mason Wiles, was a teacher in the English and humanities areas, and again taught at a college and a State school.

Comments made in his reports included these: "He shows a real flair for teaching English... planning and preparation were exemplary... has a thoughtful and calm manner in relation to classroom incidents.

"He is to be especially commended on his ability to deal with, and defuse, conflicts and potential disruptions... demonstrated a high commitment to the learning needs of his students.

"He demonstrated an

excellent knowledge of his subject... modelled genuine enthusiasm for his material, which was naturally transferred to his students".

"He is a remarkable teacher. It has been wonderful to listen to the way he has held teenage boys enthralled with difficult and demanding study of English texts," a supervisor wrote.

The Satisfac Teacher Practice Awards were presented to Ms Abela and Mr Wiles earlier this month by Ms Karen Starr, the Principal of Henley High School and member of the Satisfac Direct Credit Union Board (pictured above).

These are the first awards of their kind, which were made as part of Satisfac's 40th year celebrations.

Leadership award to Ag Science graduate

AGRICULTURAL science graduate Thomas Murrell (BAgSc Hons 1985) has received a Vincent Fairfax Fellowship.

The Fellowships were established in 1994 to "enable people of exceptional promise to make a difference to the world in which they live" through participation in a unique two-year leadership program, in which skills are enhanced through exposure to a wide range of experiences that highlight the ethical issues confronting Australia and the region.

The Fellowships are a program of the Sydney-based St James Ethics Centre made possible through the Vincent Fairfax Family Foundation.

Mr Murrell has already completed the first part of his Fellowship, including an outdoor leadership program in Katherine Gorge, a Cross-Cultural Awareness Program at Nungalinga College, Darwin, a two-week period at the remote Tanami

gold mine in Central Australia and workshops in Canberra and Sydney.

Next year he will travel to China to investigate the impact of the globalisation of the media on traditional Chinese values. He will also attend the Institute for Strategic and International Studies annual conference in Malaysia.

Thomas Murrell is the Managing Director of 8M Media & Communications, a WA-based consultancy.

A major new project for his company is the production of Resources 2000, a television program on mining and energy to be broadcast in Australia and Asia through Australia Television, pay TV, a regional network and via the internet.

Mr Murrell previously worked with the ABC as a reporter, presenter, executive producer and manager of regional stations in Western Australia.



Thomas Murrell—leadership award

As well as his Honours degree in Agricultural Science from the University of Adelaide, he has a Graduate Diploma in Agricultural Economics from New England and a Master of Business Administration from the University of Western Australia.

The Florey Centenary celebrations in England

IT IS TO the credit of Dr John Best AM, MD, PhD, Chair of the Australian Institute of Political Science and the Honourable Dr Michael Wooldridge, Minister of Health, that it has been possible to celebrate the Florey Centenary in Canberra, Melbourne, Adelaide and the UK this year.

Dr Best invited those of his Adelaide committee who could do so to attend the celebrations that had been arranged in England. The Royal Society Open Days and soirees took place on 17-18 June and the Lord Florey Society Dinner was held at Lincoln College on 10 July.

My wife and I and Dr Anne Rendell attended the Memorial Service in Westminster Abbey. Evensong was conducted by the Very Reverend Dr Wesley Carr, Rector of Lincoln College. Wreaths were laid on Lord Florey's memorial stone in the north transept by Mrs Daphne Hamilton-Fairley and Lord Florey's granddaughter Catherine Florey after speeches by the High Commissioner for Australia, His Excellency Mr Philip Flood AO, and Sir Robert May AC FRS, Chief Scientific Adviser to the UK government.

A reception followed in the Jerusalem Chamber. Those present included the South Australian Agent General Mr Maurice de Rohan OBE, Lord Florey's son and daughter Professor Charles Florey and Dr Paquita McMichael, Dr Norman Heatley (one of Florey's leading associates in developing penicillin), Associate Professor Bill Roediger from our Queen Elizabeth Hospital and Mr Anthony Roediger, a present Rhodes Scholar.

On 29 September the Florey Centenary Lecture was delivered at the Sir William Dunn School of Pathology by an Australian, Emeritus Professor Sir Henry Harris, who had succeeded Lord Florey in the Chair of Pathology. In his concluding remarks he said that "Florey did not have the genius of Newton, Darwin or Einstein. Nevertheless he was a man of outstanding intellect, able to

perceive important avenues of research, and having the leadership and drive to overcome obstacles and achieve a goal".

The Oxford Science Park is a joint venture between Magdalen College and the Prudential Assurance Co Ltd, opened in 1991 to provide links between Oxford University, private enterprise and other centres of research. At the opening of Florey House in the Oxford Science Park on 30 September, Dr Best gave a synopsis of the Florey Centenary Celebrations which had taken place in Canberra, Melbourne and Adelaide. Sir Robert May, himself an Australian, performed the opening. He mentioned, inter alia, Florey's all-round sporting abilities and that whilst working at Cambridge University he played County Cricket for Cambridgeshire.

At 6.00pm Dr Best and Mr Geoffrey Marshall, Provost of Queens College, hosted a reception in the Library of Queens College where Lord Florey had been Provost in his latter years. A selection of Florey's Medals and citations on loan from the Ashmolean

Museum were on display.

The final event was the Florey Memorial Dinner at Magdalen College. His Excellency Mr Phillip Flood proposed the toast to Lord Florey, to which Professor Richard Larkin, Chairman of the NH&MRC, responded. A Magdalen custom was observed in which guests were moved to other places at the table before being served cheese and coffee. This led to our meeting the family of the late Professor Gwyn Macfarlane, author of *Howard Florey, The Making of a Great Scientist*. This memorable experience in the grandeur of Magdalen Dining Hall rounded off the Florey Centenary Celebrations. We wish to express our appreciation to Dr Best for the opportunity to attend these memorable functions.

—Richard Brock, MBBS 1949 *

* Dr Brock played a key role in celebrations of Florey's achievements coordinated by the Alumni Association's Florey Medical Chapter to commemorate the 50th anniversary of his Nobel Prize in 1995, and the centenary of his birth this year.

Alumni Association assists doctoral students through grants

THE AUGU/RC Heddle Awards and Mutual Community Postgraduate Travel Grants for October 1998 have been awarded to the following students:

• Mutual Community Postgraduate Travel Grants:

Mr Jonathan Nicholls, Centre for European Studies and General Linguistics

Mrs Clare Gill, Department of Animal Science

Miss Karen Westwood, Department of Botany

• AUGU/RC Heddle Awards

Mr Tim Gourlay, Department of Applied Mathematics

Miss Gerarda Stewart, Department of Chemistry

The Alumni Association is delighted to be able to assist these students in their work and wishes them well with their studies.

The next round of Mutual Community Postgraduate Travel Grants will be advertised in March/April 1999. These grants are funded through a project of the Alumni Association and Mutual Community health insurance providers.

The next round of AUGU/RC Heddle Awards, which are funded through a fund set up by the former Graduates' Union, will be advertised in August 1999.

ALUMNI NEWS

A PORTRAIT OF JOHN BRAY - LAW, LETTERS, LIFE

Published jointly by the John Bray Law Chapter of the Alumni Association, the University of Adelaide Foundation and the Libraries Board of South Australia, this book commemorates the life and work of John Bray in the form of essays by people who knew and respected him—Dame Roma Mitchell, Justice Michael Kirby, Andrew Ligertwood, Jean P Whyte, Peter Ward, Arthur Rogerson, Brian Medlin, Andrew Taylor and Michael Abbott QC.

The volume is eminently readable and is a striking tribute to Bray's life and works.

Available from the Alumni Office in Kintore Avenue or phone (08) 8303 5800, fax (08) 8303 5808, or email: <gsauer@registry.adelaide.edu.au>

Priced at \$32.00 (soft cover) and \$55.00 (hard cover, very limited quantities)—includes postage and packing within Australia.

All proceeds from the sale of this book go to the John Bray Law Chapter of the Alumni Association and will be used to support the Law School.

CHANGES TO ALUMNI COMMITTEE IN KUALA LUMPUR

The Committee of Adelaide Uni Alumni Malaysia Bhd has changed recently and the office bearers for 1998-1999 are as follows:

President : Mr Sim See Kee (BTech '65)

Vice-President : Mr Mathew Thomas Philip (BEc '90 LLB '92)

Secretary : Ms Angelina Pillai (BA '93)

Treasurer : Ms Ai Ling Lee (BE Chem Hons '95)

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Camtech invites Alumni Association members to enquire about their special Christmas deal—an internet Christmas for \$49.95.

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- 'Study Skills' for Year 9 & 10 Students preparing for 1999.

Obtain a brochure from your Student Counsellor or by phoning Continuing Education on

(08) 8303 4777

THE UNIVERSITY OF ADELAIDE



Mattanya shows Uni "is serious", says new Director

FOR A PLACE that houses only 19 students, Mattanya Housing Association is a true melting pot.

Ninety percent of the students are from interstate, they are aged from 18 to 50 and are studying courses ranging from music to medicine. What binds them together is that they are all Aboriginal or Torres Strait Islander people.

Nick Leidig, a 28-year-old Aboriginal student in his final year of a BA (Aboriginal Affairs Administration) at the University of South Australia, has recently been handed the task of ensuring that Mattanya is a harmonious and effective community of scholars.

He has been appointed Academic Director of Mattanya for two years, a task for which he is well prepared given his experiences both as a student and as a manager with Aboriginal Hostels.

Located in restored heritage houses in Finnis St, North Adelaide, Mattanya is a unique experiment in student housing affiliated with the University of Adelaide.

Finding appropriate and affordable accommodation is seen by many Aboriginal people as a barrier to successful university study, particularly because so many travel interstate to study.

Mr Leidig said Mattanya aimed to improve the success and retention rates of Aboriginal people at university by creating a supportive community, as well as providing high-quality, low-cost housing.

"There are various reasons why there is a high attrition rate among indigenous students at university, but I think the

University of Adelaide has an advantage in having Mattanya," he said.

"It shows to the students that the University is serious about addressing their needs."

This is an important message to convey, given the sense of alienation which many indigenous students can feel at university.

"This place seeks to break down the alienation that is there, and offers a social atmosphere where students can meet their own people and be supported.

"Mattanya is the Kurna word for 'owner' and that is an important concept in this place—to give students a sense of ownership and responsibility in the running of Mattanya. They are responsible for the success of Mattanya.

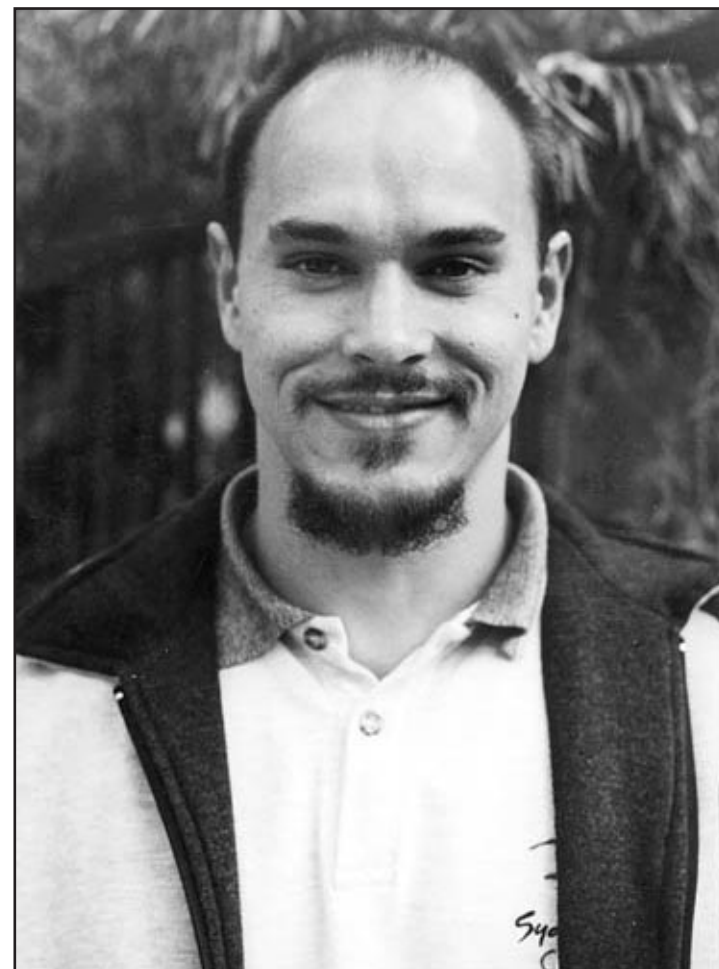
"I would like to hope that some of the students here can develop a really strong bond with others, and have the kind of supportive networks that are needed to get them through their studies.

"The people here hate to see someone drop out. When they see someone struggling they really support them in their studies and their life so that they can get through."

He responds clearly to questions about why such a project is needed specifically for Aboriginal and Torres Strait Islander people.

"This is not a new idea," he said. "There are many housing associations specifically designed to address the needs of disadvantaged groups within our society.

"This may be part of the transition for Aboriginal people. We may eventually break down the barriers



Nick Leidig—new Academic Director of Mattanya.
Photo: Jo Shearer, Wilto Yerlo

that exist, but at the moment Aboriginal people are comfortable to be with each other and need that support."

Mr Leidig, who identifies with the Kurna and Ngarrindjeri people, grew up in several different States and therefore had a disrupted time at high school.

He worked with Aboriginal Hostels, a group which provides accommodation for Aboriginal and Torres Strait Islander people in need, whilst studying at university.

"I found university much more conducive to study than school," he said. In particular, he appreciated

being treated with respect as an adult, and also the broader range of subject areas on offer.

"I would like to encourage students who didn't have a great time at school to come to university, because through their studies they can find a lot of satisfaction.

"Being able to study more about culture and history at university has been very important to me—a critical factor in my university life."

Mr Leidig is also the Aboriginal and Torres Strait Islander representative in the Students' Association of the University of South Australia.

—David Washington

5UV NEWS

- 5UV and 5MBS are getting rid of most of their classical vinyl records at a sale to be held outside the station on Friday, 11 December from 10am. All records will be \$1 or \$10 per dozen. Funds raised will go towards keeping MBS on the air.
- The 25th National Conference of Public Broadcasters will be held this year at the University on the weekend of 4-6 December. This is the first time that the CBAA conference has been held outside the eastern States. Adelaide and 5UV represent the birthplace of public (community) broad-casting in Australia. The conference promises to be a landmark event in the history of the sector.
- 5UV's recent production of the Adelaide Leidertafels's 40th anniversary CD was the 10th CD the station has produced in recent years. 5UV is now fully equipped to burn CDs for music and data. See Darren or Luke at the station for details.

FOR MORE INFORMATION ABOUT RADIO 5UV PHONE 8303 5000.

ACCOMMODATION

ASCOT PARK: Close to public transport, overseas students welcome. \$65 per week (pay own phone calls and food costs). Ph Ray 8276 1746.

BEULAH PARK: 2/3 br house, furn, avail mid-Dec to mid-April 99. Rent negotiable. Ph Hugh Possingham 8303 7724.

BRISBANE: Fully furn or unfurn 3 br townhouse in quiet bushland setting, handy to Uni of Queensland and city. Includes swimming pool, tennis court and lots of mod cons. Avail early Jan - late Dec 99. \$320 pw unfurn/\$350 pw furn. Ph 0419 886 490 or email: <russ@mech.uq.edu.au>.

BURNSIDE: House avail 16 - 27 Dec. Ph 8303 5196 or 8364 1144 (ah).

KANGAROO ISLAND: Holiday retreat avail Dec - Jan. Magnificent views., Minimum one week. Ph Peter 8362 3698.

GLEN OSMOND: 3 br fully furn house, no pets, assistance with gardening. Close to schools and transport. Avail early Dec. \$210 pw + bond. Ph 8379 4869.

WANTED: Professional couple with 2 children and 2 cats require 3 br house or townhouse from mid Dec - early Mar 99. Rental or house-sitting arrangement acceptable. References avail. Ph John 8204 0273 or 8379 1096.

ADELAIDEAN CLASSIFIED

FOR SALE

COMMODORE: Equipped wagon, 6/96, still under warranty, 26,000km, silver, outstanding cond, must sell going o/s. Susi-77. \$21,000 neg. Ph Sue Manning 8303 7331 or 8270 3934 (ah).

FORD CORTINA: 1978 manual, well maintained, good run-about, serviced regularly, all new parts, good condition, must sell going o/s. SDB 930. \$1,000 ono. Ph Suzanne 8297 9471 (ah) or email: <smacks@waite.adelaide.edu.au>.

LOUNGE: 2 seater sofa and

1 chair. Wing-back, soft brown tones, bought in UK, good cond. \$250. Ph 8331 8079 (after 6pm).

PIANO: Technics digital piano. 1.5 years old, excellent condition. \$1,700. Ph 8269 3291.

TOYOTA COROLLA: 1974, very reliable, good car. RZH 834. \$650. Ph Raelene 8333 2590 or email: <rmibus@waite.adelaide.edu.au>.

TRAIN SET: LIMA, interesting landscaped layout, 1900x1250, 2 trains, 2 controllers, over 15 metres of track in the circuit. \$350 neg. Ph 8295 1611 or 0419 814 120.

TENDER

TENDER: Ford Courier - 2 WD utility XL crew cab, 2.6 ltr petrol, manual, 7/95, 42,000km, white, tonneau cover, HD towbar, VSW 874. Inspection 26 Nov, 10am-1pm, ph Chris Grivell 8303 3259. Tenders in a sealed envelope marked Tender No W305 to the Purchasing Manager, Waite by 3 Dec 98.

TENDER: Toyota Camry CSI sedan, auto, 9/97, 46,000km, burgundy, air, cruise control, tow pack, immobiliser, VYO 859. Inspection 25 Nov, 9am-5pm, ph John Terlet 8303 4078. Tenders in a sealed envelope marked Tender No W303 to the Purchasing Manager, Waite by 1 Dec 98.

TENDER: Toyota Hilux 5 seater utility, diesel, manual, 1/97, 40,000km, white, air, tow pack, VXT 371. Inspection 26/27 Nov, ph Gerald Buttfield 8303 5844. Tenders in a sealed envelope marked Tender No W304 to the Purchasing Manager, Waite by 3 Dec 98.

MISCELLANEOUS

CHILD CARE: Reliable, references available, own transport. Ph Rebecca 8262 5134.

WORD PROCESSING: \$3.50 per page @ 250 words per page, 1500 words = \$21. Thesis formatting of WP on disk. Laser printing, after hours service, city centre location. Ph Anne Every for a guide to services & costs 8212 6869 or 8415 7866.

Bulletin Board

NOVEMBER 23, 1998

THE UNIVERSITY OF ADELAIDE

PAGE 1

Medical Research B1 Funding 1999

In December 1999 the Research Committee of the Division of Health Sciences wishes to allocate the B1 Category of Funding for Medical Research. These funds are intended to provide some support to researchers of externally refereed grant applications which have not received funding for 1999 with a view that the applications will be submitted for funding in 2000.

Applications for B1 Category Funding are hereby invited from chief investigators of grant applications to the following bodies:

- National Health & Medical Research Council
- Australian Research Council
- Heart Foundation
- Kidney Foundation

which were submitted in 1998 but were not funded for 1999.

Eligibility: All academic staff, affiliate and clinical title holders of the University of Adelaide are eligible to apply. For applications submitted to, but not funded by, the National Health and Medical

Research Council, the minimum score required for consideration by the Committee will be 7.4. Applications submitted to other externally refereed competitive granting bodies should be of a comparably high standard and should provide evidence for both the score and the relevant scaling system.

Application: Submit 16 copies of the original grant application, all comments and scores from reviewers, and a one page summary of any further comments or answers to questions raised by reviewers in particular areas. Please also indicate on this page which areas are of particularly high priority for funding together with an appropriate justification.

Funding for applications is limited - maximal sums awarded per application have not exceeded \$10,000 in previous years.

All material should be sent to Stella Richards, Faculty of Medicine Office, to be received no later than **Tuesday 1 December 1998.**

ADELAIDEAN PUBLICATION DATES 1999

Publication Date	Bulletin Board deadline	Human Resources deadline
22 February	11 February	5 February
8 March 22 March	25 February 11 March	19 February 5 March
5 April 19 April	25 March 8 April	19 March 1 April
3 May 17 May 31 May	22 April 6 May 20 May	16 April 30 April 14 May
14 June 28 June	3 June 17 June	28 May 11 June
12 July 26 July	1 July 15 July	25 June 9 July
9 August 23 August	29 July 12 August	23 July 6 August
6 September 20 September	26 August 9 September	20 August 3 September
4 October 18 October	23 September 7 October	17 September 1 October
1 November 15 November 29 November	21 October 4 November 18 November	15 October 29 October 12 November
13 December	2 December	26 November

National Teaching and Staff Development Grants

The Committee for University Teaching and Staff Development (CUTSD) has recently called for applications for National Teaching Development Grants (Organisational) and Staff Development Grants.

Staff are invited to submit expressions of interest in applying for these grants and also for National Teaching Development Grants (Individual). Expressions of interest on the appropriate form must reach the Office of the Deputy Vice-Chancellor by close of business on 7 December 1998.

Expressions of interest will be considered by a small working group chaired by the Deputy Vice-

Chancellor. From the expressions of interest submitted, the working group will select projects to be developed into full CUTSD applications. Small grants may be made to assist in the development of the applications.

The expression of interest form may be downloaded from <<http://www.adelaide.edu.au/DVC/CUTSD>>.

The CUTSD form and guidelines are available at: <<http://services.canberra.edu.au/CUTSD/ntdg/apps.html>>.

If you have any queries please contact Andrew Starcevic on extension 36106, by ccMail or by e-mail at <astarcevic@registry.adelaide.edu.au>.

MONDAY 23 NOVEMBER

1.00pm Microbiology & Immunology Seminar: Chronic myeloid leukemia biology - Application of a murine model by Dr Tim Hughes (Division of Haematology, Hanson Centre for Cancer Research/IMVS). Departmental Library, 5th Floor, Medical School South.

1.10pm History Staff/Post-graduate Research Proposals: The food culture of 19th century emigrant Prussians and its evolution in the Barossa Valley by Ms Angela Heuzenroeder. Faith, gender and society: religion in 20th century Australia by Ms Julia Pitman. Common Room 420, 4th Floor, Napier Building.

WEDNESDAY 25 NOVEMBER

1.10pm Genetics Seminar: Functional studies of laminin-1 and its receptors by Mr Mats Falk (visiting student). Seminar Room, Fisher Bldg.

THURSDAY 26 NOVEMBER

12noon HCCR/IMVS Seminar: Lipoprotein oxidation: a cause for or consequence of atherosclerosis by Dr Roland Stocker (Head Biochemistry, Heart Research Institute, Sydney). Verco Theatre, IMVS.

4.00pm The Role of Universities in Australia in 2010: Speaker - Associate Professor Shirley Alexander

COMING EVENTS

November 23rd — 4th December

(Director Institute of Interactive Media, University of Technology, Sydney). BH2-09, City West Campus, UniSA.

FRIDAY 27 NOVEMBER

9.30am Reading Australia 1998: A range of local commentators interpret issues, events and themes prominent in Australia in 1998 in a day of panels and discussions: Jenny Baker, Jude Elton, Sonja Kurtzer, John Spoehr, Elspeth McInnes, Barbara Baird, Steven Angelides, Ros Prosser, Vicki Crowley. Florence Batchelor Room, 10 Pulteney Street, Education Building. \$10/\$5. Enquiries Barbara Baird or Ros Prosser 8303 5627. Supported by the Department of Social Inquiry.

12.45pm Dentistry Research Progress Report: Fronto-ethmoidal encephaloceles: a morphometric and clinical analysis by Andrew Popovich. Lecture Theatre 1, 6th Floor, Adelaide Dental Hospital.

MONDAY 30 NOVEMBER

1.00pm Microbiology & Immunology Seminar: Molecular analysis of pneumococcal virulence factors by Associate Professor James

Paton (Molecular Microbiology Unit, WCH). Departmental Library, 5th Floor, Medical School South.

1.00pm Graduate School of Education Seminar: In Search of a Culture of Excellence by Ms Susana Manzon (Managing Director, Public and International Relations, University of Asia and the Pacific, Manila). Schulz Room, 1st Floor, Education Building.

1.10pm History Research Proposals: Matthew Beovich, Archbishop of Adelaide, 1940-1971 by Josephine Laffin. Beyond the mushroom cloud: images and understandings of atomic energy in the Australian community, 1945-1963 by Judith Webster. Common Room 420, 4th Floor, Napier Building.

5.00pm CISME Seminar: The Philippines - A Hundred Years of Civic Education by Ms Susana Manzon (Managing Director, Public and International Relations, University of Asia and the Pacific, Philippines). Council Room, 7th Floor, Hughes building. Refreshments from 4.30pm.

WEDNESDAY 2 DECEMBER

12.30pm Clinical Nursing Seminar: (Re) Writing risk: Exploring print-based media representations of

passive smoking and child vaccination rates as health risks 1996-97 by Professor Julianne Cheek (Research, UniSA). Rm CB5-55, Centenary Building, UniSA.

1.00pm HCCR/IMVS Seminar: Physiological and pharmacological cholesterol efflux: and prospect for its modulation in humans by Dr Len Kritharides (Heart Research Institute, Sydney). Verco Theatre, IMVS.

1.10pm Genetics Seminar: Regulation of mitosis during Drosophila development by Julianne Camerotto. Seminar Room, Ground Floor, Fisher.

THURSDAY 3 DECEMBER

12noon HCCR/IMVS Seminar: Mammalian cbl proteins: central protein in receptor signalling and cytoskeletal regulation by Dr David Bowtell (Peter MacCallum Cancer Institute, Melbourne). Verco Theatre, IMVS.

6.00pm CISME Seminar: Restorative Justice in New Zealand: Keeping Young Offenders Out of Jail by Judge Heather Simpson (District Court Judge, NZ). Council Room, 7th Floor, Hughes Building. Refreshments from 5.30pm.

FRIDAY 4 DECEMBER

12.45pm Dentistry Seminar: Occlusal variation in the primary dentition of Australian twins and singletons by Candy Thomas (Dentistry). Lecture Theatre 1, Adelaide Dental Hospital.

SITUATIONS VACANT

Applications for the following vacancy will be considered only from members of the staff of the University

ADMINISTRATIVE OFFICER (Ref: 4485)

Department of Surgery
Royal Adelaide Hospital
Salary HEO2: \$24,890 - \$26,463*

To provide clerical and secretarial services to the Professor of Neurosurgery. Duties include word processing of correspondence, scientific papers, research grant applications, maintaining a filing system and organising travel arrangements as required.

You should have:

- demonstrated ability to use a word processor and familiarity with medical/scientific terminology
- excellent interpersonal and oral and written communication skills

*Junior rates apply to those persons 20 years of age and under.

This continuing position is available immediately on a 51.45 hours per fortnight basis. Further details from Professor NR Jones, telephone: 8222 5628.

*APPLICATIONS to Professor NR Jones, Department of Neuro Surgery, Level 5, McEwin Building, Royal Adelaide Hospital, North Terrace, Adelaide, 5000 by 27 November 1998.

includes only those persons who hold current written contracts of appointment with the University.

Applications for the following vacancies are not restricted to members of the University.

LECTURERS B (Ref: 3658/3659)

SENIOR LECTURER (Ref: 3664) (Tenurable)

Department of Plant Science,
Waite Campus

Salary: \$48,435-\$57,518/
\$59,332-\$68,415

Three new members of academic staff are being sought for the University of Adelaide's Department of Plant Science, which is located on the Waite Campus, 7 km from central Adelaide. The

appointments will be made at Lecturer Level B or Senior Lecturer Level C, and the positions will be tenurable. Appointments will be made at levels consistent with the applicant's experience. Successful applicants would be expected to have a PhD (or equivalent) in areas of broad relevance to the research interests of the Department of Plant Science and to have a demonstrated capability to contribute to a diverse range of exciting undergraduate teaching programs.

The Department of Plant Science currently has 11 lecturing staff and a total of approximately 150 staff, including 50 postgraduate students. Staff are involved in a number of large research programs encompassing cytogenetics, virology, molecular genetics, DNA marker and genome mapping technologies, enzymology and protein chemistry, cell biology and cereal transformation, single plant physiology, mineral nutrition of plants, crop ecology and physiology, and plant breeding. Staff participate in an ARC Special Research Centre for Basic and Applied Plant Molecular Biology, and in a newly established CRC for Molecular Plant Breeding, both of which are located within the Department. A Nucleic Acids and Protein Analysis Facility, in which state-of-the-art analytical and computing equipment is maintained, is also located within the Department. Furthermore, research expertise in plant science and supporting infrastructure are available through the South Australian Research and Development Institute, the Australian Wine Research Institute and CSIRO groups at the Waite Campus, and provide excellent opportunities for the development of collaborative research programs.

Although our research activities are focussed on cereals, our primary objective in making these appointments is to attract applicants of the highest possible calibre who would not necessarily work on cereals, but who would be able to integrate their research activities into existing and projected interests of the Department. Furthermore, successful applicants will exhibit highly developed communication skills and an ability to interact with undergraduate and postgraduate students, with other members of the academic staff of the Department, with key industry

groups, and with local and international scientific communities.

The positions are available from 1 January 1999. For further information visit our web page at <<http://planta.waite.adelaide.edu.au/>> or contact the Head of Department, Professor Fincher telephone: 8303 7296, or fax: 8303 7109.

*APPLICATIONS to the Acting Director, Human Resources, The University of Adelaide, Australia 5005 by 18 December 1998.

LECTURER B

(Ref: 3677) (Tenurable)

Department of Psychology
Salary: \$48,435 - \$57,518

The Department wishes to appoint a clinical psychologist who will make a significant contribution to teaching in the course for the Master of Psychology (Clinical & Health) degree, first year Psychology and Honours Psychology. We require expertise in the areas of Health Psychology and Development (Childhood/Adolescence) Psychology, preferably with some experience in anxiety disorders in children and adolescents.

The successful applicant will teach extensively within the Master course and, in addition, present a topic in the Honours Psychology course, and a sequence of lectures in the first-year subject, Psychology I; undertake four or five half-day clinical sessions each week at the Stress and Anxiety Research Unit at the Thebarton Campus; assist with the coordination of Master placements and Master placement supervision, and participate in Master and Honours research supervision.

You should have:

- a doctorate or Master degree in Clinical Psychology, or equivalent qualification
- membership of the College of Clinical Psychologists of the Australian Psychological Society
- registration as a psychologist in South Australia

It is expected that the successful applicant will seek to further their achievements in research and scholarship.

The position is available from 1 January 1999 and teaching begins on 1 March 1999. Further details from Mr Chris Cooper, Head of Department, tel 8303 5228, fax: 8303 3770, email: <ccooper@psychology.adelaide.edu.au>.

*APPLICATIONS to the Acting Director, Human Resources, The University of Adelaide, Australia 5005, by 23 November 1998.

LECTURER A*

(Ref: 3678/3681) (Limited-Term)

Department of Pure Mathematics
Salary: \$33,905 - \$46,013**

(Ref: 3678) The successful applicant will teach in the Department of Pure Mathematics (3/4 time) and be involved in research projects (1/4 time). The teaching will be under the general direction of the Head of Department, but will relate to projects in computer-based learning and will support an on-going subject restructuring project. The research component will be in one of the areas supported by the Institute for Geometry and its Applications (finite geometry, geometric analysis or areas of analysis and/or discrete mathematics that have a geometric flavour).

(Ref: 3681) The successful applicant will teach in the Department of Pure Mathematics and will be expected to undertake research in one of the areas supported by the Department, namely algebra, analysis and applications (including mathematical physics), combinatorics, convexity, differential geometry and twistor theory, finite geometry and its applications, geometric analysis (including representation theory), group theory, number theory. This position is to replace staff on leave. You should have:

- a doctorate in Mathematics
 - experience in conducting tutorials
 - demonstrated ability to lecture
- * In exceptional circumstances, an appointment may be made at Level B.

**A minimum of \$42,864 pa is payable to the holder of a PhD.

Both positions will be available from January, 1999 for three years. Further details from Dr Bob Clarke, Head of the Department of Pure Mathematics, telephone 83033858, email <rclarke@maths.adelaide.edu.au>.

*APPLICATIONS to the Acting Director, Human Resources, The University of Adelaide, Australia 5005, by 27 November 1998.

LECTURERS A IN BIOLOGY

(Ref: 3700/3702)

(Tenurable) (Part-Time)

Departments of Zoology and Botany *

Full-time Salary:
\$33,905 - \$46,013**

The appointees will be required to teach in undergraduate laboratory classes and to deliver tutorials. Teaching will be mainly in the area of first year plant and animal biology including cell biology, genetics, animal and plant diversity and ecology. The position also involves some administrative duties related to first year teaching. The position is equivalent to half time but a greater time commitment may be required during periods of teaching.

You should have

- a higher degree, MSc, PhD or equivalent in some area of animal or plant biology
- effective written and oral communications skills
- a proven aptitude for and experience in teaching at tertiary level
- demonstrated well-developed interpersonal skills and the ability to work as part of a team
- demonstrated administrative skills

Experience in counselling undergraduate students and in the production of computer-assisted learning packages would be an advantage.

*The present Departments of Zoology & Botany will form a new department from 1 January 1999.

** (Minimum of \$42,864 is payable to the holder of a PhD)

The positions are available from 1 February 1999 on a 50% fractional time basis. Further details from Professor Russell Baudinette, Head of Zoology, tel 83035597, fax: 83034364, email <headzoology@zoology.adelaide.edu.au> or at <<http://www.science.adelaide.edu.au/zoology/>> and <<http://www.science.adelaide.edu.au/botany/>>.

*APPLICATIONS to the Acting Director, Human Resources, The University of Adelaide, Australia 5005 by 2 December 1998.

ADMINISTRATOR (STUDENTS)

(Ref: 9112)

School of Commerce

(Part-time or Full-time)

Full-time Salary HEO5:
\$33,931 - \$37,862

To assist in the management of student matters, including the provision of course advice and overseeing the service provided to students by the School of Commerce front office. The successful applicant will be able to relate well to students and academic staff in a multicultural setting and will demonstrate a service oriented approach to meeting their needs.

You should have:

- extensive experience in dealing with student issues
- excellent verbal and written communication skills
- the ability to use initiative and to seek out and evaluate information
- competence in the use of word processing and spread sheet applications

Knowledge of processes involved in the administration of a degree would be an advantage.

The position is available from 1 December 1998. The opportunity exists for the successful applicant to negotiate a full-time or part-time appointment. Further details from Lynette Swift, tel 8303 4762, fax: 8303 4368.

*APPLICATIONS to the Head, School of Commerce, University of Adelaide, Australia, 5005, no later than 4 December 1998.

DEPARTMENTAL OFFICER

(Ref: 4756)

Department of Clinical Nursing

Royal Adelaide Hospital

Salary HEO4: \$30,133 - \$33,145

The Department is involved in graduate teaching and research and is associated with the Royal Adelaide Hospital and sixteen other high quality, public and private hospitals in South Australia.

This challenging position offers a range of experiences and responsibilities. Duties will include the provision of high level administrative and secretarial support to the Head and Deputy Head of Department; administer Departmental accounts, book keeping and budget monitoring; liaise with other agencies and relate closely to the 160 graduate students enrolled in the Department.

EMPLOYMENT INFORMATION

*APPLICATIONS, IN DUPLICATE, addressing the selection criteria and quoting the relevant reference number should include residency status and names and full addresses of three referees. The address for applications is C/- the Department or Officer named in the advertisement. Selection criteria and applicable duty statement may be obtained from the contact officer named in the advertisement.

NOTICE TO APPLICANTS: Applicants for all positions should retain the relevant reference number and watch the "Notice to Applicants" column in the Adelaidean for advice about the filling of the position.

NOTICE TO APPLICANTS: The University notifies applicants that the following vacancy for

Higher Education Officer (HEO) with the reference number as stated has been filled and thanks them for their interest: 2836 HEO5, Image and Copy Centre; 1922 HEO4, Secretariat and 3464 Postdoctoral Fellow, SRC for Basic and Applied Plant Molecular Biology, Plant Science.

HUMAN RESOURCES DEADLINES FOR SITUATIONS VACANT

'Situations Vacant', - 16 December, advertising paper work must be to Human Resources by 4 December.

'Situations Vacant', - 18 January, advertising paper work must be to Human Resources by 11 January.

You should have:

- demonstrated experience and expertise in the provision of a full range of administrative functions
- demonstrated skills in basic financial administration
- excellent interpersonal skills
- expertise in the use of Macintosh computers, Microsoft Word and Excel

The position is available immediately for twelve months in the first instance, with the possibility of renewal. Further details from Professor Alan Pearson, tel 8303 3593, fax: 8303 3770, email: <apearson@medicine.adelaide.edu.au>.

***APPLICATIONS** to Professor A Pearson, Head, Department of Clinical Nursing, The University of Adelaide, Australia 5005, by 30 November 1998.

TECHNICAL ASSISTANT

(Ref: 3698)

Agronomy and Farming Systems - Roseworthy Campus

Salary HEO3(T):
\$26,725 - \$30,467*

The Department, in collaboration with the South Australian Research Development Institute will be conducting a Grains Research and Development Corporation (GRDC) funded project, examining Eyre Peninsula Farming Systems. This position is part of this initiative.

Duties include assisting in tasks related to laboratory and field experiments concerning sustainable cropping practices for the low rainfall zones in the Eyre Peninsula. You should have completed Year 12, have the ability to undertake scientific protocols for laboratory and field experimentation, and the ability to process and enter data.

*Junior rates apply to those persons 20 years of age and under.

The position is available from 4 January 1999 to 30 June 2003. Details from David Mathew on 8303 7876, or fax 8303 7979. Applications (in duplicate) addressing the selection, and including names and addresses of three referees, to Mr D Mathew, Department of Agronomy and Farming Systems, Roseworthy Campus, Roseworthy, SA 5371 by 27 November 1998.

END OF UNIVERSITY'S FINANCIAL YEAR - 31 DECEMBER 1998

The following are dates by which transactions to be recorded in the accounting system in 1998 are to be received in Finance Branch.

It is important that staff associated in any way with year end accounting related activities, in your Divisions/Faculties/Branches/Departments/Units, observe these dates:

FINAL PROCESSING OF INVOICES, PURCHASE ORDERS AND JOURNALS

Final acceptance of invoices for last 1998 cheque run:	12 noon Monday	14 December 1998
Final acceptance of purchase orders for 1998:	12 noon Wednesday	23 December 1998
Final acceptance of internal charges for 1998:	12 noon Wednesday	23 December 1998
Final acceptance of correcting journals from departments for December transactions:	12 noon Friday	15 January 1999

Departments are urged to plan ahead, especially in the case where administration staff may be planning recreation leave over December/January as:

- Any invoices/receipts/internal charges received during the Christmas break period relating to December 1998 are to be forwarded by Wednesday 6 January 1999 to Finance Branch.
- Final Period 12 financial reports will be distributed on Friday 8 January 1999.
- The close off date for correcting journals to 1998 accounts is Friday 15 January 1999.
- The 'Year End Financial Package' is due back Friday 8 January 1999 (distributed in October 1998).

FINAL PROCESSING OF PAYROLLS

Period ended 18 December 1998 (actually paid on 17 December):

- variations to payroll and overtime/shift loading	10.00 am Tuesday	8 December 1998
- casual claim forms	10.00 am Tuesday	8 December 1998

Period ended 1 January 1999

- variations to payroll and overtime/shift loading	10.00 am Monday	14 December 1998
- casual claim forms	10.00 am Monday	14 December 1998

Please note: Payroll for 1 January 1999

- Nine-tenths of the fortnightly pay will be debited against 1998 and one-tenth against 1999.
- All casual pay will be debited against 1999.

BANKING

- All cash received by departments (performing their own banking) up to 22 December to be banked and schedule delivered to Cashier, Revenue Section by 12 noon Wednesday 23 December 1997.

THESE ARE CLEAR CUT-OFFS FOR PROCESSING. THEY WILL BE RIGIDLY ENFORCED.

BJ SCHERER, Director Finance

GENERAL NOTICES

THE UNIVERSITY OF ADELAIDE

notice TO MEMBERS OF THE UNIVERSITY STAFF AND SENATE

ELECTION OF MEMBERS OF COUNCIL

3 December 1998

1. Staff elections

Three members of the academic staff to be elected by the academic staff and two members of the general staff to be elected by the general staff. Voting papers have been sent to all eligible members of staff. Any member of staff who believes he or she is eligible to vote and has not received papers may obtain voting documents on request from the Returning Officer (apply in the first instance to Room 641, Level 6, Wills Building, North Terrace Campus, phone (08) 830 33406). All terms of office are two years.

The candidates are:

ACADEMIC STAFF

RODNEY JAMES CREWETHER
PETER MAXWELL GILL
GUY JOHN MADDERN
JOHN ERNEST MARLEY
SUSAN RICHARDSON
ANTHONY WILLIAM THOMAS

GENERAL STAFF

DAVID ANTHONY BEARD
GRAHAM ERNEST CAMPBELL
JOHN DOMINIC CECCHIN
JANET ANN DIBB-SMITH
BRIAN MARTIN MOONEY
DAVID JOHN WILLIAMS

Academic Staff please note: Professor Thomas, a candidate for election to Council by the Academic Staff, did not supply details of his qualifications with his statement accompanying the election material. The qualifications attributed to him are the result of a typographical error which arose from the overwriting of candidates' information from the 1996 election. For the record, Professor Thomas's qualifications are: PhD (Flinders), DSc (Adelaide)

2. Election of three members by the Senate

(Staff and students of the University are ineligible for election in this category.)

The candidates for election are:

MICHAEL LEWIS ABBOTT
IRVINE JAMES BETTISON
JANINE HAINES
JEANETTE THRUSH BRENTNALL LINN
EDWIN HARRY MEDLIN
LESLIE TREVOR OLSSON

All terms of office are two years.

Voting documents have been sent to each member of the Senate whose name appears on the Senate Postal Address List

SUSAN GRAEBNER, Returning Officer

HUMAN RESOURCES

Situations Vacant/External Advertising

As the *Adelaidean* will not be published during the holiday break, Human Resources will be producing information on job vacancies for December 1998/January 1999.

Publication dates and deadlines for advertising material to reach Human Resources are as follows:

Publication Date	Human Resources Deadline
16 December	4 December
18 January	11 January
1 February	25 January

The 'Situations Vacant' will be available on the Human Resources web page at: <<http://www.adelaide.edu.au/HR/>>.

To assist departments that wish to advertise in the external press (eg *Advertiser*, *Australian*) during December/January, we advise the following deadlines:

Publication Date	Human Resources deadline
19 December	11 December
9 January	23 December
16 January	8 January

STEVE DAYSH, Acting Director
Human Resources

SUPERANNAUTION

Variations to Death and Disablement cover and Regular Voluntary contributions to TESS are allowed on 1 January and 1 July each year. Variation forms should reach the Superannuation Office by 24 December 1998.

Further information and variation forms are available by phoning the Superannuation Office, ext 35222 or 34917.

SHIRLEY SUTHERLAND

DECLARATION OF RESULT SSAU Consultative Committee

Election of Academic Staff member from the University of Adelaide (one vacancy)

At the close of nominations for this vacancy, 12 noon Friday 6 November 1998, only one nomination had been received.

I therefore declare the following nominee elected:

PETER MAXWELL GILL

SUSAN GRAEBNER
Returning Officer

DEPARTMENT OF CLINICAL AND EXPERIMENTAL PHARMACOLOGY

Volunteers required

Healthy Volunteers required for a drug metabolism study involving a single urine and saliva sample.

Age: 18-50 / Male or Female

For further information tel Janet Collier on 8303 5985

(\$10 compensation paid for involvement)

Physiotherapy Clinic

ASSESSMENT AND TREATMENT

by
registered physiotherapists undertaking
postgraduate studies

TREATMENT BY APPOINTMENT ONLY

8302 2541

FEES

If covered by private insurance for extras
(Health Fund
cheque only)

Uninsured: \$25 per visit

Students: \$20 initial visit, \$15 follow up

Pensioners: \$15 per visit.

CLINIC HOURS

Monday, Wednesday, Friday
10.00am - 12.30pm

LOCATION

Centenary Building, Level 6 (CB6-45),
School of Physiotherapy, University of
South Australia. Frome Road entrance -
Gate 1 or 2, North Terrace - Gate 23.

SOUTH AUSTRALIAN GRAIN INDUSTRY TRUST FUND

Call for Applications for 1999/2000 Research Program

The SAGITF was established in 1991 to administer the voluntary research levy, which has been collected from South Australian wheat and barley growers for many years. The responsibility for management and direction of the fund is vested with the South Australian Farmers Federation in conjunction with the SAGITF trustees.

Applications for SAGITF funding should be for research of specific relevance to the South Australian grain industry and should follow the project application guidelines circulated by the Trust.

Applications must be received at the address below by 25 January 1999 with applicants being advised of the outcome of their submission by the end of April 1999. Project commencement dates would be 1 July 1999, although some flexibility is possible.

Application forms, project guidelines and further details are available from Ms Kathryn Baum, tel (08) 8232 5555, fax (08) 8232 2222.

**South Australian Grain Industry Trust Fund, PO Box
6014, Halifax Street, Adelaide, SA 5000**

AUSTRALIAN RESEARCH COUNCIL

SUPPORT FOR 2000 FUNDING LARGE RESEARCH GRANTS AND FELLOWSHIP SCHEMES

Information Sessions

Information Sessions on the ARC Large Research Grants and Fellowship schemes will be held on the following dates in December 1998.

All intending applicants are invited to attend.

Professor Ross Milbourne, Deputy Vice-Chancellor (Research) and Chair, ARC Research Grants Committee together with ARC panel members with experience of the ARC process and Research Branch staff will be present to provide information to assist you with your application for 2000.

North Terrace: Wednesday, 9 December, 2-00 - 3-00pm, The Council Room, Level 7, Wills Building.

Waite Campus: Tuesday, 15 December, 1-00 - 2-00pm, Charles Hawker Conference Centre

Topics to be covered will include any changes to the schemes or guidelines for year 2000 funding panel comment and feedback on the 1999 application round and hints on preparing successful applications

Enquiries to Research Branch: Telephone 830 35137

SCHOLARSHIPS, RESEARCH

AND OTHER FUNDING SCHEMES

Research Grants & Fellowships

The following is a list of grant, fellowship and other research funding schemes currently available for application. A more detailed electronic version of this listing (Update: Research), together with guidelines and application forms for some of the major schemes, are available at: <<http://www.adelaide.edu.au/RB/>>. For hard copy application forms the Research Branch, ext 35137; email <research@registry.adelaide.edu.au> or cmail RESEARCH, Branch.

Sponsored Programs Information Network (SPIN): SPIN Australia - A database containing current and comprehensive information on over 2,600 government and private funding opportunities. SPIN web site: <http://australia.infoed.org/spin_start.html>. Select 'Access Spin WWW' and then select 'Spin Australia'.

Department of Industry, Science & Tourism (DIST) - Technology Diffusion Program (TDP): This Program has three integrated components: Technology Alliances; Technology Transfer; and Online Business. Further information about the TDP is available from the AusIndustry web site: <<http://www.ausindustry.gov.au/tdp>>. U19/98

Women's & Children's Hospital - Clinical Research Fellowships: Applications must reach Miss Nikki Johnson, Research Secretariat, Women's & Children's Hospital by 11 December 1998. Application forms may be obtained by contacting her on: tel 8204 6390; fax 8204 6112 or email <Johnsonn@wch.sa.gov.au>. U21/98

International Agency for Research on Cancer - Fellowships for Research Training in Cancer: Internal closing date: 14 December 1998. Web site: <<http://www.iarc.fr/education/fellow.htm>>. Please note: Due to the specific criteria governing the fellowships, IARC prefer potential applicants to contact them directly to request application forms to enable them to carry out a certain degree of preselection. Contact ph, fax & email details are available from their web site. U20/98

University of Cambridge - Corpus Christi College: Visiting Fellowships 1999/2000: Applications need to be with the Secretary, Corpus Christi College by 15 December 1998. U8/98

Clive & Vera Ramaciotti Foundations - Ramaciotti Foundations Travel Award: Internal closing date: 17 December 1998. U8/98

Royal Society of Victoria - Medal for Scientific Research for 1998 (Earth Sciences): Internal closing date: 21 December 1998. U18/98

Australian National University (ANU), Humanities Research Centre: Academic Program 2000: Visitors Program - Internal closing date: 22 December 1998. Web site: <<http://www.anu.edu.au/HRC/>>.

The John Carter Brown Library - Research Fellowships 1999-2000: Internal closing date: Amended from 1 January to 4 January 1999. U20/98. Web site: <http://www.brown.edu/Facilities/John_Carter_Brown_Library>.

Gladys Kriebel Delmas Foundation of New York - Grants for Venetian Research 1999/2000: Internal closing date: 4 January 1999. U22/98

Smithsonian Institution - 1999 In-Residence Fellowships (Postdoctoral & Senior): Internal closing date: 6 January 1999. U21/98

New Educational Aids in Medicine and Science (NEAMS) Trust - Grants: Internal closing date: 8 January 1999. U19/98

Norwegian Nobel Committee - Invitation to nominate candidates for the Nobel Peace Prize: Internal closing date: 11 January 1999. U21/98

Health & Aged Care; Dept of - Pharmaceutical Education Program 1998/99: Grants for research and education projects to promote Quality Use of Medicines. Internal closing date: 13 January 1999. U22/98

Grains Research & Development Corporation (GRDC) - Applications for Conference Support 1999-2000: Internal closing dates: 15 January 1999 (for the six months July 1999 to December 1999). U11/98. Web site: <<http://www.grdc.com.au>>.

South Australian Grain Industry Trust Fund - Research Funding 1999/2000: Internal closing date: 18 January 1999. U22/98

Australian Institute of Aboriginal and Torres Strait Islander Studies - Research Grants Program 1999: Internal closing date: 22 January 1999. U20/98. Web site: <www.aiatsis.gov.au>.

Scholarships

Unless otherwise stated, information and application forms for the following scholarships are available from the Registrar, Scholarships, or the Scholarships Officer, Graduate Studies and Scholarships Branch, Level 7, Wills Building, ext 35697/33044. Please lodge all applications with the Scholarships Office unless otherwise stated.

Adelaide Summer Research Scholarships: Open to undergraduates in all disciplines who are Australian citizens or permanent residents who have completed at least two years of a Bachelor's degree at a standard acceptable for admission to honours. Value: \$300 p/f for six weeks. Closing: 27 November (Scholarships)

Asia/Pacific Scholars Program Stanford University: These are available to citizens of PRC or Hong Kong, and cover maximum of two years tuition and living allowance, and one-time round trip economy travel. Applicants must apply independently to, or be enrolled in, a Stanford graduate department or school. Details: Romola Breckinridge, Program Coordinator, Encina Hall 311, Stanford University, Stanford CA 94305-6055, 650 7236756, fax: 650 725 2010, email: <romola@stanford.edu> or web: <<http://www-iis.stanford.edu/APSScholars>>.

Australian Pulp & Paper Institute Master of Engineering Science Scholarship (Pulp & Paper Technology): Value: \$14,000pa plus costs and tenable at Monash University. The degree includes coursework consisting of two semesters of intensive lectures, given by both APPI and industry-based lecturers, interspersed with field trips and a conference trip to NZ; as well as a minor thesis component. Details: Prof R Johnston, APPI, Chemical Engineering, Monash University, (03) 9905 3422. Course or entry requirement details from Joanne Green (03) 9905 3422; Fax: (03) 9905 3413 or email: <joanne.green@eng.monash.edu.au>. Closing: 4 December (Monash)

Cambridge Australia Trust: An information sheet regarding Packer and Poynton Scholarships for study at Cambridge in 1999, are currently available. Admission and scholarship forms available from The Secretary, Board of Graduate Studies, 4 Mill Lane, Cambridge, CB2 1RZ. Closing: Admission: 31 January & Scholarship: 30 April (Cambridge)

Charles and June Ross International Fellowship: Open to women scientists (natural and physical sciences) who are Australian citizens and graduates of an Australian university to undertake full-time graduate/postgraduate study or research. Tenable in the US for one academic year. Value: \$US15,400. Applications available from AAUW Educational Foundation, Fellowships and Grants, North Dodge Street, PO Box 4030, Iowa City, Iowa 52243-4030 USA. Closing: 1 December (USA)

Frank Perry Scholarship in Engineering: Open to Australian citizens or permanent residents of Australia enrolled in a Masters or PhD, who hold, or expect to obtain, another major award tenable at the University of Adelaide ie an APA or University scholarship. Details on request. Closing: 30 November (Scholarships)

Fujitsu Asia Pacific Scholarship Program: Participants in this 15 month program complete a full-time one year MBA, pursue Japanese or Chinese language and culture courses conducted jointly by Hawaii University's College of Business Administration, and the Japan-America Institute of Management Science. Program concludes with a 3 month internship at a major Chinese or Japanese corporation. Closing: 30 November

Korean Association of Science & Technology in Australia - Work Experience: Available for four weeks, 4-30 January 1999, includes Sydney/Korea return airfares, accommodation and meals. Applicants must be majoring in science/engineering in an Australian university. Details from: Dr Sung-Mook Hong (02) 9772 6248 or Dr Ji-Soon Kim (02) 9385 1694.

Mitchelton Wines Preece Fellowship - Masters Degree in Wine Business: Applicants must be Australian citizens or permanent residents who are acceptable as candidates for the Master of Applied Science in Wine Business at the University of Adelaide. Value: \$17,000. Closing: 11 December (Scholarships)

Wyatt Benevolent Institution University Scholarships for Country Students 1999: Open to students, under 25 years of age, living away from home (rural SA) while undertaking a first degree/diploma course at a SA university. Applicants must be, and have been resident, in SA for a period of less than 5 years in total, and are in reduced financial hardship (family financial circumstances will be taken into account). Value: \$3,000pa. Closing: 18 December (Scholarships)