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News from the University of Adelaide

June 2002

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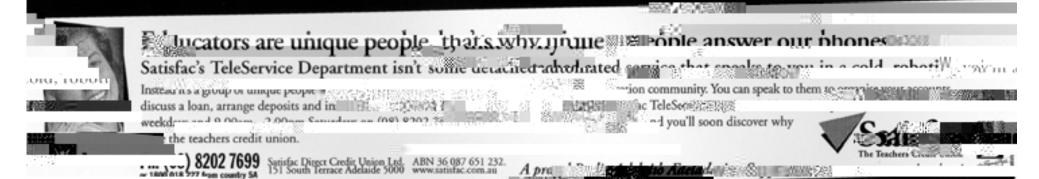
BIOTECHNOLOGY in South Australia has been given a major boost, with the University of Adelaide winning its bid to host the \$35 million National Centre for Plant Functional Genomics.

The world-class centre, to be based at the Waite campus, will lead to significant benefits for Australia's \$8 billion grains industry.

The centre's work will involve identifying and tracking the genes in wheat, barley and other crops that control tolerance to environmental stresses, such as drought and salinity. Through molecular technologies, the centre will help develop plant varieties that are resistant to these environmental stresses, providing benefits for food production worldwide.

The centre is expected to play a pivotal role in the growth of Australia's agricultural

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Medical Research Week celebrates life

"What is Life Worth" is the theme of this year's Medical Research Week (June 1-8). It's a celebration of Australian medical research with respect to what has been achieved, quality of life and the money that has been saved.

The University of Adelaide and the Faculty of Health Sciences are sponsors of the week, which involves a number of main events in Adelaide. These include:

ASMR-MRW Dinner Monday, June 3 Mt Lofty House

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SOUTH Australia's reputation as a world leader in road accident research will be further strengthened with the creation of the new Centre for Automotive Safety Research.

The centre will be based on the University's renowned Road Accident Research Unit. It will receive \$1 million a year from the State Government over the next 10 years and will be headed by Professor Jack McLean, Director of the Road Accident Research Unit.

The centre will also draw on research expertise from the automotive industry and the two other South Australian universities.

"Since its foundation in 1973, the Road Accident Research Unit has built an international reputation for its cutting-edge work in the field of road accident and road injury prevention," said the University of Adelaide's Vice-Chancellor, Professor Cliff Blake.

"The announcement of the new centre is an acknowledgement of the Road Accident Research Unit's achievements under the leadership of Professor McLean.

"The collaborative nature of the centre means that it will bring together some of Australia's—and the world's—best design engineers and safety researchers. It is a tremendous boost not just for the car industry in South Australia but for the research and development industry here generally. It will

also help to keep the State at the forefront of engineering education and open up new employment opportunities for graduates.

"The development of the centre provides yet another opportunity for the three universities in South Australia to collaborate and develop a strong relationship with a major industry in the State."

Professor Blake acknowledged the part played by the University of Adelaide's Chancellor, Mr Robert Champion de Crespigny, in his role as Chairman of the State Economic Development Board, in helping to secure the new centre for South Australia.

"The centre promises to bring tangible benefits to the South Australian community," Professor Blake said, "but its research has the potential to benefit many more people nationally and internationally."

—John Drislane

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Small snail could cause big problems

NEW research is aiming to reduce numbers of a small brown snail which could threaten the Australian citrus industry's \$45 million worth of annual exports to the United States.

The small brown snail (or SBS) *Microxeromagna armillata* measures only eight millimetres in diameter and is innocuous enough to be known only by its descriptive name—but it has already cost one orange exporter \$250,000.

University of Adelaide PhD student Ms Angela Lush is looking at the best way to control SBS numbers in Australia's orange growing regions, and says growers are becoming increasingly aware of the economic impact the pest could have.

"The US is very strict about the small brown snail, as it is not found there. If they find a snail in an orange they refuse to let the consignment come in, and it's up to the exporter to send it to another destination where the snail is not considered a quarantine problem," she said.

"The 2000 season was the last export season in which there were snail detections, and it cost the particular exporter about \$250,000 to re-export the affected consignment and

also for fruit fumigation and burial in the

"We didn't have any detections in 2001, which was good, but the problem is an ongoing one and we need to be vigilant."

The SBS was introduced from the Mediterranean region, and is most prevalent in the Riverland, Sunraysia and Riverina citrus growing regions. It is found primarily in leaf litter underneath trees, but can also be found on tree trunks and up to 4m high in the tree canopy.

Ms Lush is undertaking her PhD through the University's Department of Applied and Molecular Ecology, and also acts as a research officer for SARDI's Entomology Unit

She is examining various SBS control methods, including baiting and trunk banding—but says growers can also contribute to managing SBS numbers.

"Trees should be well-skirted and weeds kept down to minimise the risk of snails climbing into trees," she said. "They also like fallen fruit, so growers should have good picking practices and not harvest fallen fruit."

"There's a fair bit at stake for the growers if



Oranges growing at the Waite campus. Photo: David Ellis.

they don't take all the necessary precautions to safeguard against SBS in their US exports, not least of which is loss of income.

"If they want to export fruit to the US, then their orchards have to undergo a snail

"If they fail this assessment, then they don't

get access to this lucrative market and they receive much less money for their export quality fruit."

For more information about the small brown snail, visit SARDI's SBS homepage at: www.sardi.sa.gov.au/pages/horticulture/citrus/snail_pg.htm

—Ben Osborne

Toil without the till to save soil: India to benefit from new crop approach

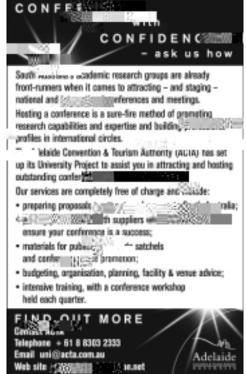
INDIA and Australia might seem worlds apart, but the two countries have many things in common.

Unfortunately for grain-growing farmers in both countries, they too have much in common—they share many of the same douf.

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WHILE TV shows such as *Big Brother* video surveillance footage. take video surveillance to an almost surreal level, a group of University of Adelaide researchers is working on more practical applications of the technology.

The Computer Vision Group, made up of staff and students from the University's Department of Computer Science, is developing low-cost solutions to computerised video surveillance across a naturally of computers. network of cameras.

Such a network is ideal for monitoring environments like office complexes, according to leader of the group Professor Mike Brooks.

"One of our strategies is to connect a camera to each PC in the building, and set each camera to automatically monitor the surrounds when the PC's screensaver is invoked, or at the user's direction," he said.

"The camera continually scans the scene, saving only those image frames that exhibit motion. These frames are digitally time-stamped before being uploaded over the network to a central repository, or server there's not much use in storing images on your PC of a thief stealing your PC!" At the server, the images are then grouped to form discontinuous videos of activity.

This strategy has been developed through the Cooperative Research Centre for Sensor Signal and Information Processing.

Also on Professor Brooks's agenda, with help from colleagues Dr Anton van den Hengel and Mr James Tebneff, is tackling challenges associated with searching and tracking of

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WHO could have known that the University of Adelaide's own radio station would create a national phenomenon?

5UV Radio Adelaide (101.5FM) was Australia's first community radio station, starting in June 1972. This month the station is celebrating 30 years of broadcasting.

Although the next station like it did not appear for another two years, today there are more than 300 community radio stations all over Australia, inspiring community involvement on the airwaves (and the e-waves).

Over those years, 5UV Radio Adelaide has continued to evolve and change, pushing the boundaries of community radio and winning numerous national awards for its programs. Many of the volunteers and staff of the station have gone on to make their mark in mainstream broadcasting, with names such as Keith Conlon (Channel 9 and Radio 5AA), Richard Moorcroft (ABC Television) and Sue Howard (head of ABC Radio) all having worked at 5UV over the years.

In 1972, when Keith Conlon was the station's first manager, 5UV Radio Adelaide was hardly recognisable relative to today's model.

Broadcasting initially at 1630 on the AM dial, it was known as VL5UV, was located in the Barr Smith Library and was not allowed to play music.

Thirty years later and things have changed: the station is now known as 5UV Radio Adelaide, broadcasts on FM, occupies a high-

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A PHYSICS student who discovered evidence that huge galaxy clusters had collided in space is one of four young Australians to receive an international Young Scientist Award.

Ms Melanie Johnston-Hollitt, PhD student with Adelaide's Department of Physics and Mathematical Physics and the CSIRO's Australia Telescope National Facility, made her unique discovery last year by studying the results of radio telescope data.

She found that entire clusters of galaxies located billions of light years from Earth had collided, creating a massive shock wave in space. The wreckage left behind by the collision could be seen in the form of radio waves.

Now another of Ms Johnston-Hollitt's research projects—creating a map of what the night sky looks like in terms of magnetic fields—has earned her further international recognition.

She was chosen for the Young Scientist Award from among an international field. The award is made by the world's peak radio science body, the Union Radio-Scientifique Internationale (International Union of Radio Science, or URSI), and gives Ms Johnston-Hollitt the opportunity to attend URSI's forthcoming General Assembly in Maastricht, the Netherlands, in August.

Ms Johnston-Hollitt was one of only nine scientists throughout the world to be awarded the prize in her field. Four of those chosen

were from Australia, and she was one of only two women. (Two of the other successful Australian candidates are also linked to the Australia Telescope National Facility, ATNF, in New South Wales.)

The awards are made on the basis of the candidates' past research output, academic qualifications, and the paper they would present at the assembly if successful. The candidates' applications are first ranked locally, based on knowledge of their work,

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MONDAY, JUNE 3

1pm Clinical & Experimental Pharmacology Seminar: "Combatting 'Carbonyl Stress' With Cytoprotective Drugs" by Dr P. Burcham. Seminar Room, Level 6, Medical School North.

1.10pm Geographical and Environmental Studies Seminar: "Power, politics, race and resistance: an examination of the relationship between indigenous Filipino communities and Australian mining companies" by Ms Jessica Gilding (PhD candidate), and "Public versus private ecotourism as a means of ecological restoration in the Flinders Ranges" by Ms Emily Moskwa (PhD candidate). Room 918, Napier Building.

1.10pm Law School Lunchtime Seminar: "Lawyers, Courts and Social Change: Some Reflections from Family Law Practice in England" by Professor Rebecca Bailey-Harris (University of Bristol). Room 216, Ligertwood Building

8pm Classical Association of South Australia

1.10pm Student Workshop: "MeditatiBeranes Steephple University, Philadelphia, USA).

WEDNESDAY, JUNE 5

Cook University). Benham Lecture Theatre.

and Geophysics). Mawson Lecture Theatre.

and its impact on the stabilisation of red wine

THURSDAY, JUNE 6

12.05pm Psychology Seminar: "Behavioural genetics" by Mr Matthew Welsh. Room 526, Hughes Building.

1pm Chemical Pathology Seminar: "Data to Information – the Laboratory Challenge" by David Datson (Laboratory Software Consultant). Seminar Room 1, 4th Floor, Reiger Building.

1.10pm Inaugural Lecture: "Cancer treatment aiming at new targets" by Professor Ian Olver (Medicine). Council Room, Level 7, Wills Building.

4pm Applied and Molecular Ecology Seminar: "Parasitic angiosperms: friend or foe?" by Dr Jennifer Watling (Environmental Biology). McLeod Theatre, Waite Campus.

FRIDAY, JUNE 7

1pm Environmental Biology Seminar: "Data Management issues in Biodiversity Informatics" by Ben Moretti (Environmental Biology). Lecture room G03, Napier Building.

Concert: Florian Ammess(violin), Janis Laurs (cello) and Stefan Ammess(piano) perform works by Mozart and Dyorak, 9rofess Hall, admission \$4.

TUESDAY, JUNE 11-26.79/S/textd/b24/blook/s:hmolp/Deep

Relaxation". Counselling Centre, ground floor, Horace Lamb Building.

WEDNESDAY, JUNE 1210.10a.9roectrical and roectronic Engineering

Seminar: "Feedback Gain Control in Image Process" by Dr PetessLozos(DSTO). Room S112,

meeting: "Being Able to Stand the Sight of Blood: Engineering South Building.12.3-2.9Clinical Nursing Seminar: "The use of Gladiators at Rome" by Ron Newboldgicaluncisks in the operating theatre" by Ms Room, 7th Floor, Hughes Building. Deborah White (Clinical Nurse, RAH). Room 36,

Level 3, roeanossHarrald Building.1pm: EAvistraliaental Biology Seminar TUESDAY, JUNE 4 Ceriodaphnia revealed! Godwanan "Waterfoeas" aren't European" by Emesitus Professor Dorothy

Relaxation". Counselling Centre, greenth flooriture Theatre. 5.3-2.9 Centre for Biomedical Engineering
Horace Lamb Building.

Seminar: Title to be announced by Associate Seminar: Title to be announced by Associate Professor Tim van Doorn (RAH). Hone Lecture

10.10am Electrical and Electronic Engineering
Seminar: "Advanced Geolocation Techniques for HURSDAY, JUNE 131pm Chemical Pathology Seminar: "Witchcraft,
Electronic Scripper Systems of Helphand dressing sciences" by
Room S112 Engineering Sciences of Anthropology).
Seminar Room 1, 4th Floor, Reiger Building.67 -2.9Inaugural Lecture: "Change, the
the Type Engiron achieves of Mike Kingsford (James
Cook University) Repham Lecture Theatre

1.10pm Geology and Geophysics Seminar: "CRC for Landscape Environments and Mineral Exploration activities" by Dr Pat James (Geology

1.10pm HVO Research Seminar: "Copigmentation pigments" by Ms Stephanie Lambert (HVO). Plant Research Centre Auditorium, Waite Campus.

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Digital age makes Fisher papers available worldwide

THE BARR Smith Library has "It was a steep learning curve, as the variable embarked on a project to digitise the published scientific papers of the eminent statistician and geneticist R.A. (Sir Ronald) Fisher.

The project was initiated by Emeritus Professor J.H. (Henry) Bennett, a former student, research assistant, colleague and friend who had worked with Fisher at Cambridge and was closely associated with him when Fisher came to Adelaide in 1959.

Fisher's research papers and extensive original correspondence with scientific colleagues have been deposited with the Library's Special Collections and can be readily located by an internet search. However, interest in Fisher's work is extensive outside of Adelaide; the digitisation of his published articles is the first part of a broader project to make Fisher's work more readily available to researchers worldwide.

Elise Bennetto, who has undertaken the digitisation on behalf of the Library, said the project presents unique challenges.

print quality of the original publications presented various difficulties. But with the experience gained and continuing advances in software development it is hoped we can further enhance the utility and accessibility of the site," she said.

In a nice recycling of the rewards of academic initiative, funding for the project has been authorised by Professor Bennett from the R.A. Fisher Collected Papers Fund, created from sales of the Collected Papers (published

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COMMENT

THE DALAI LAMA: A MAN OF PEACE?

DURING his recent visit to Australia, the Dalai Lama was careful to present himself as a spiritual rather than a political leader. "The nature of my visit here is not political," he said [ABC online]. Nevertheless, tour organisers ensured that wherever he spoke banners were strategically placed bearing slogans like "Support non-violence. Free Tibet".

To the casual observer, slogans of this kind seem entirely appropriate, for the Dalai Lama received the Nobel Peace prize in 1989 due to his advocacy of the non-violent resolution of the conflict between his homeland and China. He is also the leader of a faith, ie Buddhism, universally recognised as a religion of peace.

In light of this, how could anyone doubt the Dalai Lama's commitment to peace?

The story begins in 1956 when Khamba tribesmen in eastern Tibet rose in armed revolt against the Chinese military. In response, the Dalai Lama's elder brother Gyalo Thondup, living in exile in India, approached the CIA for assistance. The CIA initiated an operation, code-named "ST Circus", that saw the US secretly fund, train and arm thousands of Tibetans seeking to drive the Chinese from their homeland.

A 1998 BBC documentary titled *The Shadow Circus: The CIA in Tibet* asked the Dalai Lama to comment on the CIA operation. He replied: "There is a basic Buddhist belief that if the motivation is good and the goal is good, then any method, even apparently of a violent kind, is permissible. But then, in our situation, in our case, is it practical or not, that, I think, is a big question."

Significantly, this claim parallels the justification given by Japan's Buddhist leaders for their unconditional support of Japanese militarism during World War II. In 1937, two Buddhist scholars, Hayashiya Tomojirô and Shimakage Chikai, wrote: "The reason that Buddhism hasn't determined war to be either good or bad is that it doesn't look at the question of war itself but rather to the question of the war's goal. Thus, if the war has a good goal it is good, while if it has a bad goal it is bad. Buddhism doesn't merely approve of wars that are in accord with its values; it vigorously supports such wars to the point of being a war enthusiast."

Whether the Dalai Lama was ever a "war enthusiast" is unknown, but there were definitely those among his followers who were. One Tibetan fighter, Ratu Ngawang, explained his decision to take up arms: "My father would tell us the Communist Chinese were the enemies of our religion so we never felt it was a sin to kill them. In fact, we'd try to kill as many as we could. When we killed

an animal, a prayer would come to our lips; but when we killed a Chinese, no prayer came to our lips." [BBC]

Not only did their Buddhist faith motivate Tibetans to kill Chinese, but it prepared them to die as well. Bapa Legshay, one of 259 Tibetan guerrilla leaders trained by the CIA at Camp Hale in Colorado's Rocky Mountains, explained to the BBC how he felt at the time he and his fellow trainees parachuted back into Tibet: "Thanks to Buddha, even if we were to die, our spirits were high. The CIA had given us a cyanide capsule to take in case of capture."

The CIA told Tibetan recruits that they wanted to help restore Tibet's independence. Yet, as Sam Halpern, former CIA Executive Assistant, admitted years later, the CIA never saw this operation as anything more than "keeping the Chinese occupied, annoyed, and disturbed, that is to say, it was nothing more than a nuisance operation". As far as the CIA was concerned, it was a near perfect operation, for it cost the US relatively little and the Tibetans (and Chinese) did all the dving.

Initially, the CIA-supported Tibetan resistance had more than 5000 fighters at bases in southern Tibet. It was these fighters who made it possible for the Dalai Lama to escape from Lhasa, disguised as a soldier, in March 1959. And, according to the BBC documentary, it was the CIA that arranged for the Dalai Lama and his followers to be granted safe haven in India.

In return, the CIA acquired some of the most important intelligence documents ever to come out of China. This was the result of Tibetan attacks on Chinese truck convoys plying the Xinjiang-Tibet Highway. These attacks took place at the time of the Great Leap Forward campaign in China, and the official documents found on the trucks, once their drivers had been killed, detailed the internal turmoil China was experiencing as a result.

Eventually the Chinese army succeeded in driving the Tibetan fighters out of Tibet, and the remnants were forced to withdraw into northern Nepal. Despite this defeat, the US continued its support, creating a newuibet.2(the

continued its support, creating a newuibet.2(then02.2423 Tw[(f50)5.fe0 miy lntar4)12.4 ooeperthnt int4(ligenlt.)]TJ0 -1.4835 TD078402 TwHo r, g the Tibetnts werd mor[(inter)10.2ste

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Johanna's new job in NY the start of new marketing opportunities

WINE Marketing graduate Johanna Clayton has won a highly coveted position with a New York winery.

Ms Clayton, a 2001 graduate, started work last month for Dr Konstantin Frank Vinifera Wine Cellars in New York State.

It's the first position offered following a recent visit to the area by Dr Johan Bruwer, Senior Lecturer in Wine Marketing at the University of Adelaide. Dr Bruwer and Mr

PAGE 12 JUNE 2002

Elder ensemble offers two glasses of Max's best wine at St Magnus

A 12th CENTURY cathedral on the Orkney Islands off Scotland will be the venue for the Elder New Music Ensemble's first overseas performances later this month.

The eight-member group will present two concerts (June 25 and 26) at the St Magnus Festival in Orkney's capital, Kirkwall, which is home to the distinguished British composer Sir Peter Maxwell Davies.

The connection between the University of Adelaide and Maxwell Davies dates from the 1960s when he taught composition at the Elder Conservatorium. Two years ago, New Music Ensemble director Grahame Dudley (a friend and former student of the composer) helped arrange for Maxwell Davies to return to South Australia as composer-in-residence at the Barossa Music Festival.

During his visit, the composer worked with the ensemble and wrote a new piece for them, *A Glass of Frontignac* (dedicated to Peter and Margaret Lehmann), which he used as the subject of a master class. He also invited the ensemble to perform at the 2002 St Magnus Festival.

