

Adelaidean

NEWS FROM THE UNIVERSITY OF ADELAIDE

December 2008 | Volume 17 | Number 10

inside this issue



8

Family unit set
in Stone Age



10

South Australian
of the Year Awards



15

Creative writing student
wins literary prize



17

Penguins' not-so-happy
ending discovered in DNA

Cricket ball quality takes a knock

Engineering

A study by a University of Adelaide sports engineer shows that not all cricket balls are consistently manufactured, causing quality issues and potentially having major implications for cricket matches.

The research, conducted by the coordinator of the Sports Engineering degree program at the University of Adelaide, Associate Professor Franz Konstantin Fuss, studied five models of cricket balls manufactured in Australia, India and Pakistan.

The study looked at the methods of construction, stiffness, viscous and elastic properties, and included changes to the balls' performance under compression and stress relaxation tests.

Dr Fuss found that the model manufactured in Australia – the Kookaburra Special Test – was the only cricket ball manufactured consistently. The other four models were found to have inconsistent "stiffness", which can play an important part in how a ball reacts when struck by the bat.

"In contrast to other sport balls, most cricket balls are still hand-made, which may affect the consistency of manufacturing and thus the properties of a ball," Dr Fuss said.

story continued on page 18



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From the Vice-Chancellor

The world is definitely getting smaller.

Recently I was in Chile where I was greeted by a friendly voice in Santiago Airport: "Mr President!" It was a former student from one of our wine programs who recognised me. He had returned home with his wife, an Adelaide law graduate, to work and live in Chile. This graduate was still carrying his student ID, and proudly showed it to me!

It was such a pleasant surprise to receive this warm welcome so far from Adelaide, and it was also a gratifying reminder of the kind of impact our education has on people's lives, wherever they might be in the world.

Regardless as to whether you still keep your old student ID card in your wallet or purse, the University of Adelaide is never far away. This year we've brought Adelaide a lot closer to our alumni globally thanks to the launch of a new online community.

Called "Adelaide onLION", the website is a social and professional networking site for University of Adelaide alumni. Membership is free and is open to graduates, current and former staff, and current and former students.

The site gives members the opportunity to connect with their University and fellow alumni within a safe and secure online environment. It's ideal for professional networking, giving members the opportunity to find jobs and mentoring opportunities, post vacancies, upload resumes and make contacts with others in their field.

As a social networking tool, it gives you the chance to re-connect with fellow classmates, make new contacts, take part in online discussions, join groups, and create a personal profile, with photos and video.

Alumni news and benefits to members are also an important part of what the site offers.

The alumni community is responding well to Adelaide onLION – since its launch mid-year by the Development

and Alumni office, more than 7000 people have joined, and the number is growing every week.

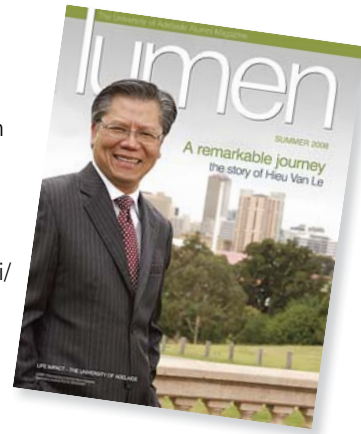
To find out more, visit:
www.adelaide.edu.au/alumni/

Of course, another way to learn about exciting developments at the University is by reading publications such as this (our monthly publication, *Adelaidean*, which will return in March 2009) or our alumni magazine, *Lumen*, which comes out twice a year and now has a circulation of 56,000 per issue.

The latest issue of *Lumen* is out this month, and it contains a cover story about one of our great graduates, South Australia's Lieutenant Governor and former refugee Mr Hieu Van Le. His is a fascinating story, and I recommend this magazine to you – whether you receive a printed copy or read it online.

To read any of these publications and to stay in touch with other news and events at the University, visit:
www.adelaide.edu.au/news/

We can't always be lucky enough to cross paths in person, which is why I'm pleased that technology is helping us to stay connected.



JAMES A. McWha
Vice-Chancellor and President

Art & Heritage Collections

During this summer, the Art & Heritage Collections team invite you to enjoy public art on the North Terrace Campus.

Where better to start but on the North Terrace frontage with the sculpture of Sir Thomas Elder. This sculpture was commissioned by public subscription and was erected in 1903 to commemorate significant bequests to the University of Adelaide by Sir Thomas.

The sculpture has an imposing presence on campus and is a fine example of work by the renowned British Imperial artist Edward Alfred Briscoe Drury.

■ Mirna Heruc, Manager, Art & Heritage Collections



Sir Thomas Elder

E A B Drury (1856-1954)
London 1900-1903

bronze 2.86m statue on
granite pedestal with
bronze panels 3.76m

Photo by Chris Tonkin



New court honours Chief Minister

■ Alumni

“The Chief Minister has been a powerful force for developing strong and continuing good relations between our two countries”

Above: Chief Minister Taib (right), Vice-Chancellor Professor James McWha and other guests tour the newly landscaped Taib Mahmud, Chief Minister of Sarawak Court

Photo by John Hemmings

The University of Adelaide has named a plaza on North Terrace in honour of one of its distinguished graduates and long-time benefactor, the Chief Minister of Sarawak, the Right Honourable Pehin Sri Dr Haji Abdul Taib Mahmud AO.

The ‘Taib Mahmud, Chief Minister of Sarawak Court’ is a newly landscaped social space adjacent to the Ligertwood Building.

Chief Minister Taib came to the University of Adelaide as one of the Malaysian Colombo Plan scholars in the late 1950s. He graduated with a law degree in 1961 and spent a year in Adelaide as an associate to Justice Mayo, a Judge of the Supreme Court of South Australia, before returning to Malaysia.

He entered politics within Malaysia at a very early age in 1963, holding various Ministerial and other positions before becoming Chief Minister of Sarawak in 1981.

Vice-Chancellor and President Professor James McWha said the University named the court in honour of the Chief Minister to acknowledge and show its appreciation of his significant support, and tireless work in helping to promote and strengthen the links between Australia and Malaysia.

“The Chief Minister’s personal generosity has continued in numerous ways over the years,” said Professor McWha.

“But perhaps even more importantly has been the continuing support the Chief Minister has provided to help us build links with Malaysia, which are now considerable.”

The University of Adelaide has more than 800 international students from Malaysia and another 160 domestic students who were born in Malaysia. There are several thousand Adelaide graduates in Malaysia.

The University has agreements on research collaboration, student exchange and articulation arrangements with various Malaysian universities.

In 2006, the University signed a Memorandum of Understanding with the State Government of Sarawak on research collaboration, including postgraduate scholarships. There are currently 10 postgraduate research students in Adelaide under that agreement.

“The Chief Minister has been a powerful force for developing strong and continuing good relations between our two countries,” said Professor McWha.

“In his role as Chairman of the Malaysia-Australia Foundation and in other ways he has continuously promoted mutual understanding and goodwill among both peoples.”

■ Story by Robyn Mills

■ News in Brief

Season for giving

The gift of education takes on a festive theme at the University of Adelaide this month.

Staff and students are being encouraged to donate an educational gift for underprivileged children.

A Christmas tree ‘with a difference’ – created by local artist Hans Kreiner – has been erected in the foyer of the Mitchell Building and is now open for public viewing.

Donations of books, puzzles or other educational toys in support of The Smith Family are welcome.

The tree will become part of the University’s art collection.

Governor’s award to Radio Adelaide

Radio Adelaide’s “forward thinking approach, vibrancy, freshness and energy” has impressed the judges of the Governor’s Multicultural Awards.

The community radio station won the Governor’s Multicultural Award for Media, and the judges said: “Many mainstream commercial radio stations could learn a lot from Radio Adelaide.”

With more than 500 volunteers aged between 16 and 85 broadcasting in 11 different languages, Radio Adelaide is a microcosm of society at large.

“As one of Australia’s first and most celebrated community radio stations, changing from a relative monoculture to a vibrant multicultural and multilingual station is one of our greatest achievements in the past 10 years. The result of Radio Adelaide’s socially supportive projects and training greatly enhances our multicultural society long after the on air sound waves have faded,” said Station Manager Deborah Welch.

www.radio.adelaide.edu.au

Widgets and gadgets at Research Tuesday

The final Research Tuesday public seminar for 2008 will be held at the University of Adelaide this month, with Professor Janet Hiller speaking about “Widgets, gadgets and other health technologies: Using evidence, priorities and values to guide choices”.

Janet Hiller is Professor of Public Health and Deputy Head of the School of Population Health and Clinical Practice at the University of Adelaide. She is Director of Adelaide Health Technology Assessment (AHTA).

Her talk will be at 5.30pm on Tuesday 9 December in Room 102, Napier Building, North Terrace Campus.

www.adelaide.edu.au/research



Should voting become compulsory worldwide?

Politics

“There’s an important question around whether compulsory voting affects the behaviour of incumbent governments and reduces the role of money in election campaigns”

Above: Despite pockets of apathy, more people than usual exercised their right to vote at this year’s US presidential election

Photo by Melody Kramer

Is compulsory voting the most effective way of ensuring a true democracy?

A new University of Adelaide study will help to address this question and could provide a global solution to addressing declining levels of voter turnout around the world.

Associate Professor Lisa Hill from the University’s School of History and Politics will use a \$61,000 Federal Government grant to demonstrate that Australia has one of the best-managed voting regimes in the western world.

The issue has been highlighted in the wake of a landslide election victory sweeping US Democratic Senator Barack Obama to power, in which record numbers of US citizens cast their vote.

More than 148 million people, or 64% of the eligible population, exercised their democratic right to elect the next President of the United States. In 2000, just 51% of eligible voters (105 million) cast their ballot.

“This is bucking the trend in industrialised countries worldwide, where poor voter turnout is becoming a matter of serious concern,” Dr Hill said. However, the US spike in turnout is likely to be temporary due to the unusually high prominence of the election.

Although Australia is the only English-speaking country in the world to compel its citizens to vote, a number of other established democracies have shown serious interest in the idea, including Britain.

“One MP in the UK has recently introduced a Private Member’s Bill for its adoption and some intensive research is being undertaken there to gauge its suitability for the British context,” Dr Hill said.

Likewise, there have been calls for its introduction in the US, Canada, New Zealand, Israel and even Jordan.

Dr Hill will look at whether compulsory voting actually violates liberal-democratic principles – as claimed in some quarters – or offers

a remedy to one of the most urgent problems facing industrialised democracies worldwide.

“This project is the first systematic assessment of compulsory voting from a practical, legal and constitutional viewpoint.”

The study will reveal whether compulsory voting regimes are perceived to be more legitimate than voluntary regimes, if Australians report higher levels of trust in government than their overseas counterparts and whether there are equally effective non-mandatory means for improving voter turnout.

“There’s an important question around whether compulsory voting affects the behaviour of incumbent governments and reduces the role of money in election campaigns,” she said.

The two-year study will begin in 2009 and is funded by the Australian Research Council.

■ Story by Candy Gibson



State-of-the-art laboratories in the Wine Innovation Cluster's new \$28 million building

Photo by John Kruger

Turning \$28m mortar into wine

■ Wine

“Every aspect of wine science and production will be catered for”

Adelaide is set to become the centre of wine and grape research in the world, following the launch of the Wine Innovation Cluster and the opening of its new \$28 million building at the Waite Campus of the University of Adelaide.

The Cluster brings together the resources of the Australian Wine Research Institute, CSIRO Plant Industry, private research agency Provisor Pty Ltd, South Australian Research & Development Institute (SARDI) and the University of Adelaide, and is being hailed as the most dynamic mix of grape and wine researchers assembled in one precinct anywhere in the world.

“Investment in state-of-the-art physical facilities like the Wine Innovation Cluster is a symbol of something far more substantial,” said the Hon. Rory McEwen, Minister for Agriculture, Food and Fisheries, who officially opened the new building last month.

“It’s a way of ensuring our wine industry remains competitive and sustainable in international markets. This is a vote of confidence in the wine industry and collaborations like this are the way of the future. The \$28 million investment maintains the Waite Campus as a leading wine centre.”

Stuart McNab, Chairman of the Wine Innovation Cluster and Foster’s Director of Wine Production in

Australia and New Zealand, said Australia’s wine scientists would be able to achieve, through cooperation and collaboration, breakthroughs that would not be possible working as standalone agencies.

“Combined with the world-class education reputation of the University of Adelaide and the location on the famous Waite Campus, the Wine Innovation Cluster is set to achieve its target as the world’s premier research, development, extension and education facility servicing the wine industry.

“Every aspect of wine science and production will be catered for, with research spanning such fields as microbiology, chemistry, sensory science, engineering, oenology and viticulture.”

At the Cluster’s centre is a new four-level building – the Wine Innovation Central Building – with state-of-the-art laboratories, offices and meeting rooms. This new building is adjacent to the Hickinbotham Roseworthy Wine Science Laboratory, an experimental vineyard and the soon-to-be constructed Plant Accelerator building.

Some of the early projects already benefiting from collaboration include:

- studies on the effects of climate change on vines by Professor Steve Tyerman (University of

Adelaide), Dr Chris Soar (SARDI), and Professor Brian Loveys (CSIRO);

- the breeding of new yeasts to enhance fermentation by Dr Paul Chambers, (Australian Wine Research Institute) with Associate Professor Vlad Jiranek (University of Adelaide); and
- research into the remediation of bushfire taint in wine by Dr Kerry Wilkinson (University of Adelaide), Dr Yoji Hayasaka, Gayle Baldock and Con Simos (Australian Wine Research Institute) and partners in Western Australia (see story on page 6).

Vice-Chancellor and President of the University of Adelaide Professor James McWha said the Cluster’s research would further enhance the University’s already high reputation for research and education.

“Our teaching is informed by the latest in research and innovation, which means our students are exposed to cutting-edge developments in wine that they can take to the industry as graduates,” Professor McWha said.

“The international status of the Cluster and the facilities it offers will also attract postgraduate coursework and research students to the University from other wine-producing countries, such as the United States, France, Germany, Spain, Italy and New Zealand.”



Smoke gets in your vines

■ Wine

Australian winemakers are turning to the University of Adelaide to help identify grape varieties that are less susceptible to smoke from summer bushfires.

Oenology lecturer Dr Kerry Wilkinson will lead a collaborative project to counter wines produced in smoke-affected areas that exhibit flavours described as “burnt, ash-tray, acrid and metallic”.

Over the past five years, wine regions across Australia have reported financial losses and a decline in product quality following either bushfires or prescribed burns.

Dr Wilkinson said the industry needs grape and wine production methods that minimise the uptake of smoke by vines or the extraction of smoke-derived aroma compounds during winemaking.

“We also hope to identify grape varieties suitable for planting in smoke-prone areas and find new techniques to detect smoke taint in juice and wine,” she said.

The University of Adelaide is partnering with industry representatives and Primary Industries and Resources SA on the \$497,000 three-year project.

“The aims and outcomes of this research are of major significance and relevance to the Australian wine industry,” Dr Wilkinson said.

“From a scientific perspective, our results will advance knowledge in the fields of viticulture, plant physiology and biochemistry. From an industry perspective, this insight will enable grape growers and winemakers to make informed decisions to minimise smoke-tainted wine, yielding clear economic benefits.”

The Australian wine industry is worth in excess of \$2 billion in domestic sales and more than \$3 billion in international sales, according to the Australian Wine and Brandy Corporation.

Dr Wilkinson said wine was now third on Australia’s list of agricultural



exports (after meat and wheat), although the industry continues to face growing pressure from environmental conditions – drought in particular.

“While smoke taint is not an issue for all Australian wine regions, significant bushfires have occurred in most wine-producing states of Australia in the last five years, and given the forecast for warmer summers, the problem is only going to get worse,” she said.

The Australian Research Council has pledged \$247,000 for the project and industry partners are contributing another \$250,000 in cash and in-kind support.

“Given the forecast for warmer summers, the problem is only going to get worse”

Above:
Dr Kerry Wilkinson at the Waite Campus

Photo by Candy Gibson

Top:
Photo by Ashley Hocking, courtesy of Country Fire Service (CFS) SA

■ Story by Candy Gibson



Heatwave threat sparks emergency plan

■ Health

“The threat of heatwaves in Australia in the 21st century is particularly critical due to Australia’s ageing population”

The University of Adelaide will lead a two-year project to develop a national emergency plan for heatwaves in Australia.

Dr Peng Bi from the University’s Discipline of Public Health said rising temperatures in Australia and an increase in the ageing population were expected to result in greater demand on ambulance services, more hospital admissions and emergency department visits in summer.

“Due to climate change, Australia is experiencing a warming trend, with more hot days and heatwaves. Extreme temperatures are increasingly being recognised as a public health problem and can result in many serious illnesses and even death,” he said.

A recent national study forecast that within the next 40 years, Australia would face major temperature changes and a spike in heat-related deaths, with 25% of residents aged over 65 years by 2050.

“The threat of heatwaves in Australia in the 21st century is particularly critical due to Australia’s ageing population,” Dr Bi said. “Indigenous Australians, non English-speaking people and those with a low socio-economic status or chronic disease will also be at great risk.”

Despite the projections, there is currently no systematic national heatwave response plan.

Dr Bi and colleagues from the University of Adelaide and SA Department of Health will identify the most vulnerable groups, coordinate a strategy involving relevant government departments, emergency personnel and community groups, and refine early-warning mechanisms for heatwaves in Australia.

“We will be looking at the factors that influence effective emergency assistance, measures to prevent heat-induced illness and which community groups are most (and least) likely to heed heatwave warnings.

“The different responses within urban, regional and rural populations will also be examined.”

Adelaide experienced a record-breaking heatwave in March this year, with 15 consecutive days over 35 degrees, setting a capital city record in Australia.

The \$180,000 project is being predominantly funded by an Australian Research Council grant – the third that Dr Bi has won in as many years for his research into heatwave-related health issues.

He is also a chief investigator in two other projects – in Australia and New Zealand – relating to climate change and health, which have received a total of \$3.1 million in funding over the next four years.

■ Story by Candy Gibson

Research that makes an impact

A University of Adelaide project looking at the impact of the 20th century’s most influential ballet company on Australian culture has been awarded one of three major prizes at last month’s Adelaide Research & Innovation Impact Awards.

Associate Professor Mark Carroll from the Elder Conservatorium of Music has received a \$10,000 funding injection for his joint research project investigating the history of Ballets Russes tours and their cultural influence on Australian high art and music.

The project brings together the University of Adelaide with Australia’s peak performing arts organisation, The Australian Ballet and the National Library of Australia, supported by the largest Australian Research Council Linkage Grant of its kind in the performing arts – \$400,000.

“The Ballets Russes (Russian Ballet) tours from 1936-1940 raised the bar for what was possible and changed the way Australian artists conceived of European art,” Professor Carroll said. “Up until that point, Australians had been really starved of the latest trends in European art and performance,” he said.

The two other major award winners to each receive \$10,000 were the Pain & Anaesthesia Research Clinic (PARC) and the Data Management & Analysis Centre (DMAC), also from the University of Adelaide.

The PARC team, led by Professor Paul Rolan and Professor Guy Ludbrook, has combined scientific skills and expertise in pharmacology and anaesthesia to provide innovative solutions for exploratory clinical drug development. PARC operates a unit within the Royal Adelaide Hospital and has significant global linkages.

DMAC Director Professor Philip Ryan from the University’s School of Population Health & Clinical Practice will use the \$10,000 prize to help custom design and build database systems to integrate health research statistics.

Impact accolades were awarded to the following people for their contribution to research: Professor Michael Rumsewicz (Engineering, Computer Science & Mathematics); Associate Professor Bruce Ainsworth (Australian School of Petroleum); Professor Gary Wittert (School of Medicine); and Professor John Spoehr (Australian Institute for Social Research).

■ Story by Candy Gibson



Family unit set in Stone Age

■ Ancient DNA

“We have established the presence of the classic nuclear family in a prehistoric context”

Top:
Evidence of the world's first nuclear family

Above right:
An artist's impression of the family

Photos and images courtesy of Jurag Liptak and Karol Schauer

A Stone Age burial in central Germany, unearthed by a team led by University of Adelaide DNA researcher Dr Wolfgang Haak, has yielded the earliest evidence of people living together as a nuclear family.

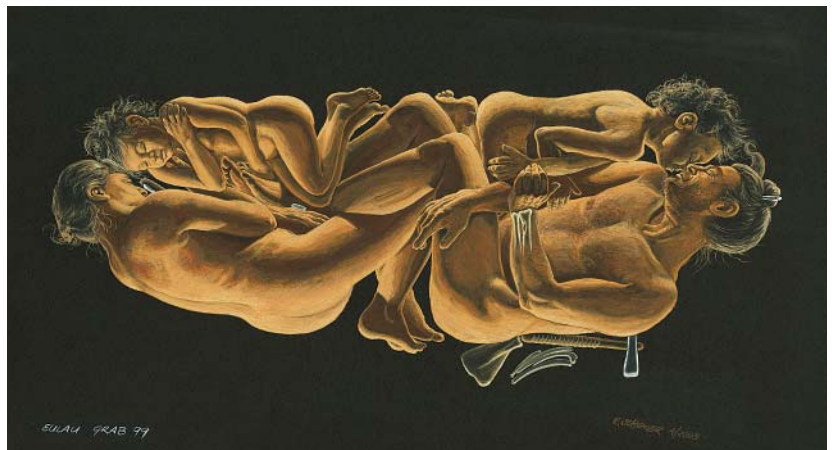
The 4600-year-old grave contained the remains of a man, woman and two youngsters, and DNA analysis shows they were a mother, father and their children.

“Their unity in death suggests unity in life,” Dr Haak said in last month's edition of *Proceedings of the National Academy of Sciences*.

While tools and remains from the Stone Age have long been studied, there are few clues to the social relationships between people.

“By establishing the genetic links between the two adults and two children buried together in one grave, we have established the presence of the classic nuclear family in a prehistoric context in Central Europe – to our knowledge the oldest authentic molecular genetic evidence so far,” said Dr Haak, who is based at the University's Centre for Ancient DNA.

The researchers studied four multiple burials at Eulau, Saxony-Anhalt, all dated to the same time and containing adults and children carefully buried facing each other.



Several of the skeletons showed evidence of injuries, suggesting a violent attack.

There was a stone projectile point in the vertebra of one woman and another had a skull fracture. Several had forearm and hand injuries, indicating attempts to protect themselves, the researchers said.

Dr Haak suggested that survivors of the raid later returned to bury the dead.

Besides the nuclear family in one grave, a second grave held three children, two of whom were siblings, buried with a woman to whom they were not maternally related. The researchers think she may have been a paternal aunt or stepmother.

The team also looked at the strontium levels in the teeth of the skeletons. Strontium builds up in teeth during childhood and can be a clue to where someone was raised.

Dr Alistair Pike, head of archaeology at the University of Bristol, said the strontium levels showed that the females grew up in a different area from the males and children. That is an indication of marriage between different groups, with women going to join their husbands, which would have been important to avoid inbreeding and to forge kinship networks with other communities.

■ Story by Candy Gibson



“The composition of the diamonds provides evidence that they grew deep beneath the Gondwanan supercontinent”

Diamonds unravel deep mysteries

■ Geology

New research into rare diamonds is helping University of Adelaide geologists to better understand the origins and structure of the earth before the world’s continents were formed.

The research, being led by Professor John Foden and Dr Ralf Tappert in the School of Earth & Environmental Sciences, is being conducted in conjunction with Flinders Mines Ltd under an Australian Research Council (ARC) Linkage grant.

The project is studying the composition of diamonds found at Eurelia in South Australia’s mid north. What makes these diamonds unique is that they contain traces of unusual minerals (magnesium-perovskite and ferropericlase) that are only stable together at great depths beneath the earth’s crust.

“Most diamonds that are in the bulk of commercial production are often in what is considered to be the shallower part of the mantle beneath the crust, down to 200-250 kms. A lot of the diamonds that Flinders Mines are dealing with are from those sorts of depths,” Professor Foden said.

“But there is a small group of diamonds, and they’re very rare

internationally, that seem to come from great depths – more than 650 kms beneath the crust. There’s very little that we see at the Earth’s surface that comes from those depths normally, unless it’s in some changed state, so these diamonds are an interesting window into the deep earth.

“They’re very interesting in terms of the science of where some diamonds originate and how they rise from deep in the earth,” he said.

The ultradeep diamonds have been discovered in intrusions of an igneous rock called kimberlite, which has helped to bring the diamonds to the surface. Because the diamonds contain traces of minerals, their commercial value is extremely limited. However, as these are among only a handful of such diamonds in the world, their scientific value is greatly increased.

It’s ironic, then, that in order to fully examine the trace minerals – known as “inclusions” – the researchers need to crush and burn the diamond samples in a laboratory.

Professor Foden, Dr Tappert and colleagues believe these diamonds were formed underneath the moving plates of the supercontinent Gondwana several hundreds of millions of years ago.

“The composition of the diamonds provides evidence that they grew deep beneath the Gondwanan supercontinent in oceanic rocks trapped in the collapsed Pacific plate,” Professor Foden said.

“As the Pacific plate moved deep into the Earth’s mantle under the Gondwanan supercontinent, it took with it these rocks, which over time hosted diamond growth. When the diamonds formed, they did so around other minerals that are normally only stable at the great pressures found at depths of 650 kms or more.”

Professor Foden said these ultradeep diamonds, and others discovered in deposits in southern Africa and South America, were all formed along the rim of Gondwana.

“There are only about 100 deep diamonds known in the world, and these are unique in Australia,” he said. “These diamonds are also found in higher abundance in South Australia than anywhere else in the world, which makes them perfect for us to research.”

The research into ultradeep diamonds and their connections with Gondwana’s plate movements will be published next month in *Geology*, the journal of the Geological Society of America.

■ Story by David Ellis

Above (from left): Dr Ralf Tappert and Professor John Foden with a sample of the very rare, ultradeep diamonds

Photo by David Ellis



South Australian OF THE YEAR AWARDS 2008

University of Adelaide staff and students took out four of the 10 awards at the prestigious South Australian of the Year Awards ceremony, held at the Hyatt Regency Adelaide on Thursday 20 November.



**MATT
COWDREY OAM**

**PARALYMPIC SWIMMING
CHAMPION**

Young South Australian of the Year

The world's most successful paralympian at Beijing, University of Adelaide student Matthew Cowdrey OAM, has been named 2008 Young South Australian of the Year.

Cowdrey, 19, who is studying Media and Law at the University, accepted the award from his Excellency the Governor, Rear Admiral Kevin Scarce, at a black-tie ceremony.

On the same night Cowdrey was named best male athlete by the South Australian Sports Institute.

Cowdrey captained Australia at the 2008 Beijing Paralympic Games, winning eight medals including five gold, world record-breaking swims and was the team's flag bearer at the closing ceremony.

The second-year university student was born with a congenital amputation of his left arm below the elbow and yet in all aspects of life he has overcome his disability to achieve great things.

An outstanding athlete, Cowdrey has achieved international status, winning a host of medals. In his career to date he has broken 72 world records, 127 Australian records and 180 Australian age records.

Last year he was named International Male Disabled Swimmer of the Year and, despite his congenital amputation, also achieved an able-body qualifying time for the 2007 Telstra Australia National Championships.

Cowdrey has also been named as a finalist for the 2009 Young Australian of the Year, to be announced on January 25 next year.



**PROFESSOR
MIKE YOUNG**

**RESEARCH CHAIR OF
WATER AND ECONOMICS**

Environment Award

The University of Adelaide's most cited researcher in the media, water policy expert Professor Mike Young, has won the 2008 Environment Award for South Australia.

Professor Young has used his role as Research Chair of Water and Economics Management at the University to significantly raise public awareness of Australia's most precious liquid asset.

One of the leading water policy researchers in the country, Professor Young has proposed a template for the restoration of the Murray Darling Basin and a framework for restructuring water licences.

As a founding member of the influential Wentworth Group and winner of the 2005 Land & Water Eureka Prize for Water Research, he has used his influence to help shape State and Federal policies on water.

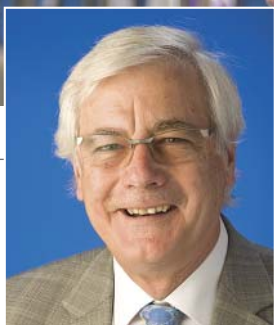
In the past 12 months Professor Young has co-produced a number of water policy proposals, most notably the idea for an Independent Murray Darling Basin Authority.

His report on future-proofing the Basin, with colleague Jim McColl, outlines a suite of institutional changes to fix Australia's water allocation and investment problems.

The *Sunday Mail* recently named Professor Young as one of South Australia's 50 most powerful people.

In accepting the award, Professor Young said for South Australia to be great, it must have a "mighty River Murray and a healthy Coorong".

"We are all living on a knife edge but I am confident we can fix the River Murray's problems and establish a reputation as the water management capital of the world."



**PROFESSOR
DICK RUFFIN AM**

**MICHELL PROFESSOR
OF MEDICINE**

Health Award

Respiratory medical specialist Professor Dick Ruffin AM has taken out the SA Great Award in the field of Health.

Professor Ruffin is a Professor of Medicine at the Queen Elizabeth Hospital and Deputy Head of Medicine at the University of Adelaide. He has worked extensively in the area of respiratory medicine, with a particular focus on asthma and chronic disease, and has secured countless grants to further research in respiratory conditions.

Professor Ruffin has also contributed to improvements to the training of junior doctors in South Australia through his chairmanship of the Post Graduate Medical Council of SA. These improvements have produced lasting benefits for the State, according to SA Health Minister John Hill.

"His work has helped many South Australians over the years, and he has shown a strong commitment to providing the best health care to the community through the public health system," Mr Hill said.

Professor Ruffin is on the Boards of the Queen Elizabeth Hospital Research Foundation and the Asthma Foundation of South Australia and also works with the National Health and Medical Research Council.

In 2005 he was awarded a Member of the Order of Australia for his services to teaching and research in respiratory medicine.

"This award recognises that teaching, training and research are integral to the future, safety and quality of patient care," Professor Ruffin said.

"The most satisfying parts of my work are seeing students and junior doctors develop skills in patient care and basic research," he added.



**PROFESSOR
JOHN HOPWOOD**

**HEAD, LYSOSOMAL DISEASES
RESEARCH UNIT**

Science Award

Research scientist Professor John Hopwood, an affiliate professor with the University's Discipline of Paediatrics, has won the Science Award for his life-long work into finding a cure for genetic disorders that affect children.

Professor Hopwood is Head of the Lysosomal Diseases Research Unit based at the Women's and Children's Hospital and a scientist of worldwide acclaim.

He has spent the last 30 years trying to crack the secrets of a group of inherited lysosomal diseases which severely affect the longevity and quality of a child's life.

Professor Hopwood heads a group of more than 440 researchers at Adelaide's Women's and Children's Hospital, focusing on the diagnosis and treatment of lysosomal storage disorders (LSDs).

Parents of a child born with a LSD can expect to see a healthy baby at birth, but as they grow older will begin to notice problems such as developmental delay, bone deformities, heart and breathing difficulties and behavioural problems. Severely affected children die by their mid-teens.

Professor Hopwood's team has developed a novel program to enable newborn screening for LSDs, believed to affect 1:1000 births. His unit has also achieved world-first treatments for two lysosomal storage diseases that have improved clinical outcomes for patients worldwide.

"This has been a fantastic journey. My passion, which has driven me for my entire career, has been to see LSD patients effectively treated," Professor Hopwood said.

Above:
Matt Cowdrey at the
Adelaide Aquatic Centre

Photo by Calum Robertson,
courtesy of Messenger
Community Newspapers



Adelaide scientist leads effort to save endangered Tassie icon

■ Ancient DNA

“Extinction within the next 20 years is a real possibility unless we find a vaccine”

Photo by Wayne McLean

University of Adelaide zoologist Dr Jeremy Austin will lead a national project to help save the endangered Tasmanian devil from extinction.

Dr Austin and colleagues from SA Zoos and the Tasmanian Government will spend the next three years establishing a conservation program and working to suppress the infectious cancer, devil facial tumour disease, which is ravaging Australia’s largest living marsupial carnivore.

The Tasmanian devil is not only a key tourism icon for Australia’s most southern State, but also ecologically critical to Tasmania’s native ecosystem.

“Extinction of the species is a possibility within the next two decades unless disease spread can be stopped,” said Dr Austin.

Because Tasmanian devils have extremely low levels of genetic

diversity and a chromosomal mutation unique among carnivorous mammals, they are more prone to the infectious cancer.

Dr Austin’s team will analyse genetic material from devil populations to understand the origin, spread and impact of the disease and try to find a vaccine.

“We need to establish whether the low levels of genetic diversity are due to recent human impacts or a long-term historical pattern. We also need to look at how the cancer is affecting surviving populations and identify individuals that may be resistant to the disease.”

Tasmanian devils became extinct on the Australian mainland at least 400 years ago and are now found only in Tasmania. Unlike Tasmanian tigers, devils survived initial human impacts following European colonisation but in the past decade their numbers have fallen drastically.

“We have lost over half our devils in the past 10 years, with an estimated population of 20,000 to 50,000 mature devils left. Extinction within the next 20 years is a real possibility unless we find a vaccine, eradicate the disease and establish captive colonies,” Dr Austin said.

Devil facial tumour disease is one of only two known clonally transmissible cancers and appears to have originated from a genetic change or mutation in a single individual. It is spread through biting, without any evidence of recovery or resistance to the disease.

The project, which has received \$168,000 from the Federal Government, combines ancient DNA methods and modern genetic procedures to examine the impact of the disease on Tasmanian devils.

■ Story by Candy Gibson



Human diet opens door to deadly bacteria

■ Science

“This research emphasises the need for people to eat only well-cooked red meat or pasteurised dairy products”

University of Adelaide scientists are part of an international research team that has uncovered the first example of a bacterium causing disease in humans by targeting a molecule that is incorporated into our bodies from our diet.

The discovery was published recently in the prestigious international journal *Nature*.

Microbiologists Dr Adrienne Paton and Professor James Paton from the School of Molecular & Biomedical Science, and collaborators, have shown that a potent bacterial toxin, Subtilase cytotoxin, specifically targets human cells that express a sugar called Neu5Gc on their surface.

“Remarkably, humans cannot make Neu5Gc, and so we should all be resistant to the toxin,” Professor Paton said.

“However, consuming foods that have high levels of Neu5Gc, such as red meat and dairy products, leads to uptake of the sugar by human cells and this makes them susceptible to attack by the toxin.”

Subtilase cytotoxin is produced by *E. coli* bacteria that cause bloody diarrhoea and haemolytic uraemic syndrome (HUS) in humans.

Professor Paton says in HUS, toxin-induced damage to the delicate cells lining the blood vessels causes clots, damage to red blood cells and kidney failure.

Humans usually become infected with the potentially deadly *E. coli* after eating contaminated food, as occurred during Adelaide’s Garibaldi outbreak in 1995.

“Red meat and dairy products, the richest dietary sources of Neu5Gc, are also the foods that are most commonly contaminated with the *E. coli* bacteria that produce the toxin,” Professor Paton said.

“Through dietary choices, therefore, humans may expose themselves to an increased risk of infection with the *E. coli* bacteria and simultaneously sensitise themselves to the potentially lethal actions of the toxin it produces.”

The international research team also included scientists from Monash University, the University of California (Davis and San Diego) and Emory University, Atlanta, Georgia.

“This research emphasises the need for people to eat only well-cooked red meat (particularly for hamburgers), or pasteurised dairy products, as these processes destroy contaminating bacteria,” Professor Paton said.

The research was funded by Australia’s National Health and Medical Research Council and the National Institutes of Health in the United States.

■ Story by Candy Gibson

Food label team worth its weight

An innovative system for weighing and labelling food products has won a team of young entrepreneurs this year’s University of Adelaide’s \$50,000 echallenge.

ProScales, with members Stephen Heaney, Aaron Green, Ammi Trainor and Matthew Welling, won the \$10,000 first prize at last month’s echallenge finals at the National Wine Centre.

The ProScales system works through a touchscreen and removes the space limitations on food labelling. It also allows changes to label format and type to be made in seconds or messages tailored for individual products.

The echallenge is run by the University of Adelaide’s Entrepreneurship Commercialisation and Innovation Centre (ECIC) and each team must have at least one student member from any tertiary institution in South Australia. A record 43 teams entered the 2008 echallenge.

Teams of up to six people develop a business plan for a new, previously unfunded business concept. Semi-finalists are paired with an experienced mentor from the business community.

“Each year the echallenge captures the energy of young, bright entrepreneurial enthusiasm and channels it into investment-ready early stage companies,” said ECIC Director Professor Noel Lindsay.

“It offers competitors unprecedented access to top South Australian business acumen. Past finalists have gone on to develop successful and thriving businesses.”

ProScales also won the Vroom and Associates prize.

Second prize went to Somnium Innovations (Ty Yengi, Jamie Miller, Gregor Edeson and Michael Brauer) for a system to reduce the high costs of environmental management for the mining industry. They also won the Piper Alderman prize.

Third prize went to PoolSafe (Magdalena Hadj, Eli Bailey and Joanna Retnam) for a device that detects and alerts parents when a child has fallen into a pool. They also won the ECIC People’s Choice Award, voted for on the night.

The Advertiser Market Ready Award went to Transformation Play (Kirsty Parkin, Robin Potanin, Pippa Buchanan) for a concept-design and pre-production project management system for videogames with benefits for society.

■ Story by Robyn Mills



Class of '58 reunites

Alumni

For more information about the University's reunions program, please phone: +61 8 8303 3317 or email alumni@adelaide.edu.au. Visit the reunions website at www.alumni.adelaide.edu.au/reunion/

Above: John Halbert MBE gives the address at the Golden Jubilee ceremony in Bonython Hall

Photo by John Hemmings

Sturt football legend John Halbert MBE was among more than 85 University of Adelaide graduates who returned to their alma mater for their Golden Jubilee reunion last month.

The University hosted a commemoration ceremony in Bonython Hall for its 1958 graduates, which attracted alumni from as far afield as the US, Malaysia and Singapore, as well as from all over Australia.

The 1961 Magarey Medallist and former Sturt premiership captain was keynote speaker for the ceremony. Mr Halbert graduated with a Diploma of Physical Education from the University of Adelaide in 1958.

The Golden Jubilee reunion is an annual event which enables University of Adelaide graduates from 50 years past to revisit old memories, renew friendships, take faculty tours and reconnect with the

people and the places from their university days.

Academic dress was worn for the ceremony to relive their graduation.

In his address, Mr Halbert highlighted the important role the University has played in the graduates' lives over the last half century.

"We are privileged to have been a part of the history of this wonderful institution. I am sure that it played a significant role in our preparation for the world outside its hallowed halls, and in the direction in which many of us travelled in these past years.

"And so I thank this University on behalf of the graduates for the honour you have bestowed on us today in this ceremony, and for the opportunity of acknowledging the important part which the University of Adelaide has played in each of our lives."

■ Story by Lana Guineay

Development & Alumni Events

John Bray Law Network

Event: John Bray Oration 2009 – "Revenge or Forgiveness: Truth and Reconciliation in the Aftermath of Human Rights Violations" by Justice Richard Goldstone, former member of the Constitutional Court of South Africa, Chief Prosecutor of the UN International Criminal Tribunals for the former Yugoslavia and Rwanda, and Chairperson of the Goldstone Commission into public violence and intimidation in South Africa

Date: Wednesday 11 March 2009

Time: 5.30pm for 6.00pm

Venue: Elder Hall, North Terrace Campus, University of Adelaide

Cost: Bank note or gold coin donation

RSVP: For bookings phone +61 8 8303 6356 or email gaynor.tyerman@adelaide.edu.au

Development & Alumni News

Alumni Parking Permits

Alumni After Hours Parking Permits for 2009 will be available soon. The permit allows you the convenience of parking at the North Terrace Campus before 9.15am and after 4.30pm Monday to Friday as well as all day Saturday, Sunday and public holidays.

Alumni who purchased a permit in 2008 will automatically receive a renewal letter in December. Those who didn't take up the opportunity in 2008 but would like to register their interest for 2009 can contact Development & Alumni on +61 8 8303 5800.

The Airport Economist

Did you know that Australia is helping Singapore 'be creative' to address its imbalance of ballet dancers to engineers, and that there is a Transylvanian Cricket Club full of Aussies in Romania?

Or that Israeli youngsters are crazy for Tim Tams and the French are buying Billabong board shorts in Bordeaux on Bastille Day? Well if you didn't, *The Airport Economist* is just for you.

Written by Tim Harcourt, Chief Economist of the Australian Trade Commission and University of Adelaide graduate, *The Airport Economist* sees Harcourt travelling the globe in chase of Australian international business success. Along the way he unravels the economic life of the many countries he visits.

With a clever turn of phrase, witty observations, and proof that there's an export dimension to almost everything, *The Airport Economist* is published by Allen & Unwin and sells for RRP \$24.95.

www.theairporteconomist.com



Alumni

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Adelaide alumni have access to a range of exclusive benefits, services and discounts – and each month we bring you the pick of the bunch for a featured special.

Special Offer of the Month: Adelaide Cellar Door

Just in time for the festive season, Adelaide Cellar Door is offering alumni special discounts on premium wines.

Adelaide Cellar Door is an online wine outlet in Australia and Hong Kong, specialising in boutique wines from small family-owned vineyards. With over 120 wines from 40 different wineries, they offer a convenient, cost-effective way to stock up for the festive season. They also offer subsidised delivery to your door anywhere in Australia or Hong Kong – a great gift for the wine lover!

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Miguel Syjuco at the announcement of the 2008 Man Asian Literary Prize in Hong Kong, with girlfriend and fellow University of Adelaide student Edith Werbel

Photos courtesy of the Man Asian Literary Prize

Creative writing student wins literary prize

■ Creative Writing

“I’d like to think that the time I took during my PhD in revising the novel contributed to my winning”

A Creative Writing PhD student from the University of Adelaide has won the prestigious Man Asian Literary Prize for a novel he wrote as part of his studies.

Miguel Syjuco from the Philippines won the US\$10,000 prize for his debut novel *Ilustrado*, a fictional account of a young Filipino caught within a notorious scandal spanning Philippine history.

Announced in Hong Kong last month, the Man Asian Literary Prize was established in 2006 to bring greater worldwide attention to Asian writing and authors.

“*Ilustrado* seems to us to possess formal ambition, linguistic inventiveness and sociopolitical insight in the most satisfying measure,” said the panel of judges for the 2008 prize.

“Brilliantly conceived, and stylishly executed, it covers a large and tumultuous historical period with seemingly effortless skill. It is also ceaselessly entertaining, frequently raunchy, and effervescent with humour.”

Miguel’s work was among a high-calibre shortlist of five novels

that included authors from the Philippines, India and China. The panel said the shortlist “testifies to the great vitality of the novel in Asian societies undergoing hectic and unexpected transformations”.

Miguel’s fiction, poetry and journalism have appeared in national and international publications and anthologies. The manuscript of *Ilustrado* has also been awarded the Grand Prize at the Palanca Awards.

Born in Manila, Miguel is currently living and working in Montreal, Canada. He has been studying for a PhD in English (Creative Writing) at the University of Adelaide and is now completing his PhD remotely.

He said the Creative Writing program at the University of Adelaide had given him “the space to fail”, which in turn had helped him to reach success with his novel.

“I have written a novel which I could not have written without both the freedom and the guidance the University of Adelaide allowed me. Because of the Creative Writing program, I was able to fail and try again and attempt to reach further,” he said.

“I’d like to think that the time I took during my PhD in revising the novel contributed to my winning, that maybe they liked its polish. It is gratifying to think that the three years I’ve spent on the book have been more than just me wandering lost in the woods.”

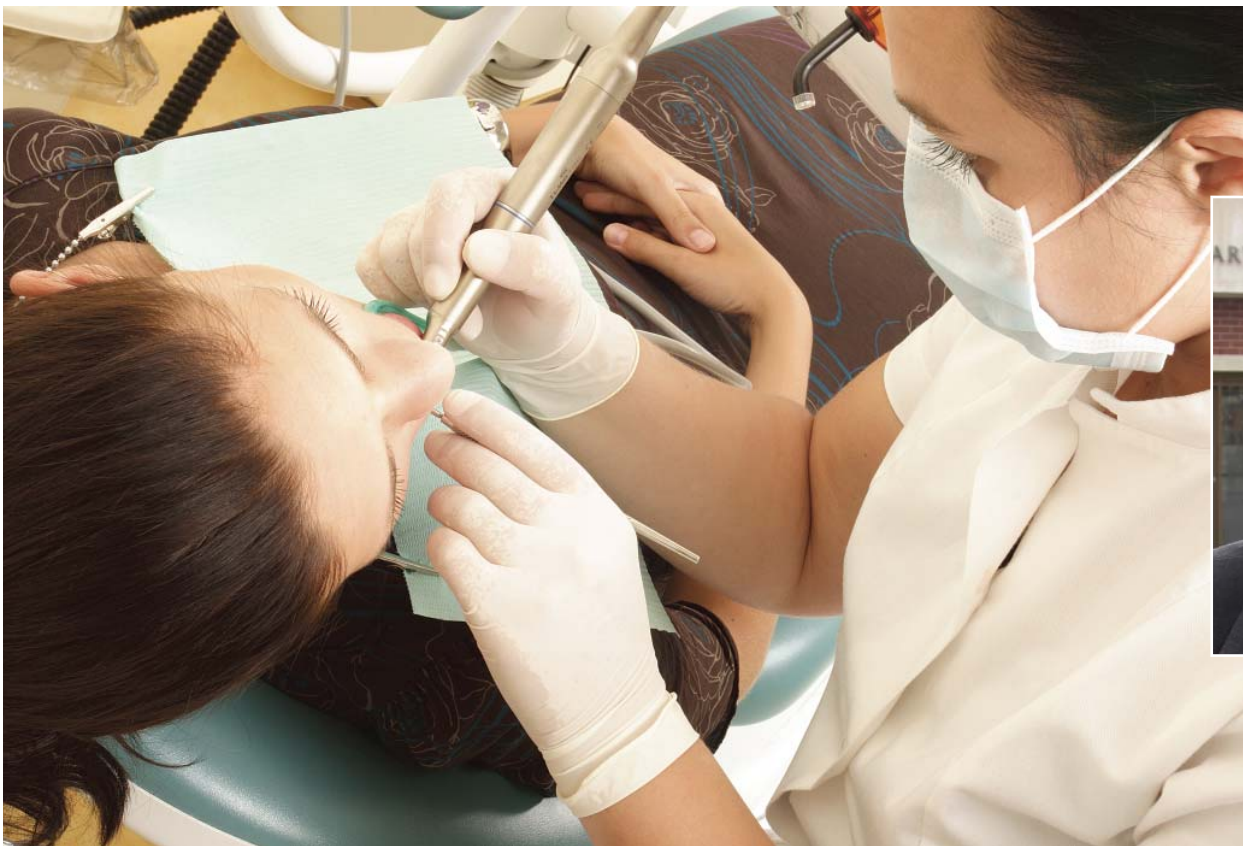
Miguel said he was “humbled” by the recognition given to his novel.

“It is not only the Man Asian Literary Prize that means much to me, but also my own country’s Palanca Award, the Philippines’ highest literary honour. I see both awards as a vote of confidence in my promise as a writer. And therefore I respond with the promise to make good on that,” he said.

Miguel said there were “many great writers in the creative writing program at the University of Adelaide”, and he was proud to be among them.

“I’m looking forward to applying everything I learned from the University of Adelaide to making my next book hopefully better than my first one,” he said.

■ Story by David Ellis



Above:
Associate Professor
Tony Rogers

Photo by David Ellis

Main photo by
Shutterstock

Opening up on dental research

■ Dentistry

“We were able to show that dental decay was an infectious, transmissible disease”

One area of science can change a lot in 40 years. Importantly, as the developments in science build on each other, they have the potential to make a huge impact on our daily lives.

Associate Professor Tony Rogers has been a researcher in dental health for almost 40 years – for most of it, with the University of Adelaide’s Dental School. In that time he’s seen some major developments in science that have helped to shape our thinking about dental health.

Dr Rogers, who is an Honorary Visiting Research Fellow with the Dental School, has edited a new book, *Molecular Oral Microbiology*, which encompasses the major developments in the field.

Microbiology has had a significant impact on dental health research and public health in general, Dr Rogers said.

“When I started out in the late 1960s, it was just becoming apparent that an organism called *Streptococcus mutans* appeared to be responsible for dental caries [tooth decay]. The idea that an organism, or a series of organisms, was causing dental decay had originally been floated early in the 20th Century but it had not been pursued and there really hadn’t been a concerted effort to find out what – at a microbiology level – was really causing dental caries,” he said.

“As part of this field of research, my colleagues and I started to work on streptococci in general, particularly concentrating on *Streptococcus mutans* in dental plaque. Among other things, we developed a method for ‘fingerprinting’ those strains, because *Streptococcus mutans* is actually a group of different organisms.

“Using the fingerprinting technique, we managed to show that, in a family group, the mother is usually the person who transmits the organism from herself to a child. So in a sense, what we were able to show was that dental decay was an infectious, transmissible disease. It was an interesting finding.”

Such research has the ability to impact on a large number of people’s lives.

“In Sweden, in particular, an early intervention approach has been implemented to educate women who attend ante-natal clinics. In such clinics, the mothers-to-be are assessed in relation to their salivary levels of *Streptococcus mutans*. Those having high levels are given appropriate treatment to reduce such levels and are given instruction in how to maintain good oral hygiene. The end result has been that transmission of *Streptococcus mutans* to their offspring is thereby delayed or prevented, as is the

development of dental caries. It’s the old adage: prevention is better than the cure, and a lot less costly,” Dr Rogers said.

There have been many important developments in dental microbiology at the molecular level, greatly enhancing researchers’ understanding of means by which dental health can be maintained. Breakthroughs include the realisation that bacteria exist in nature as “biofilms” (a “micro-ecology” of bacteria, both good and bad), the unravelling of complete genomes of a number of bacteria, and developments in proteomics (understanding the role and function of proteins in promoting or preventing disease).

Molecular Oral Microbiology is published by Caister Academic Press and has been well received in research laboratories around the world. As a textbook, it should aid in the training of dental health researchers and others with interests in microbiology generally.

“It will be especially useful for teaching at postgraduate level, and also some undergraduate teaching,” said Dr Rogers, who has donated a copy of his book to the University of Adelaide’s Barr Smith Library.

For more information about the book, visit the publisher’s website: www.caister.com

■ Story by David Ellis

Penguins' not-so-happy ending discovered in DNA

■ Ancient DNA

“The Waitaha penguin became extinct after Polynesian settlement”

Australian and New Zealand researchers have used ancient DNA from penguin fossils to make a startling discovery that may change the way we view species extinctions.

A team from the University of Adelaide, the University of Otago and Canterbury Museum in New Zealand has identified a previously unknown penguin species while conducting research on New Zealand's endangered Yellow-eyed Penguin, one of the world's rarest penguin species and the subject of an extensive conservation effort.

The Waitaha penguin became extinct after Polynesian settlement but before 1500 AD, creating an opportunity for the Yellow-eyed Penguin to subsequently colonise the New Zealand mainland from its base in the sub-Antarctic islands.

“Our findings demonstrate that Yellow-eyed Penguins on mainland New Zealand are not a declining remnant of a previous abundant population, but came from the sub-Antarctic relatively recently and replaced the extinct Waitaha Penguin,” said team member Dr Jeremy Austin, deputy director of the Australian Centre for Ancient DNA at the University of Adelaide.

“Previous analysis of fossil records and anecdotal evidence suggested that the Yellow-eyed Penguin was more abundant and widespread in the past, but it now appears they have only been around for 500 years,” he said.

The team, led by University of Otago PhD student Sanne Boessenkool, identified the large-bodied Waitaha Penguin using ancient DNA from prehistoric bones, combined with traditional morphological techniques.

“Competition between the two species previously prevented the Yellow-eyed Penguin from expanding northwards but environmental changes in the predator population, such as the severe decline of sea lions, may have facilitated their colonisation in the South Island.”

Researchers say the surprising finding demonstrates the unexpected ways in which species can respond to human and environmental impacts, and the role of extinction events in shaping our current environment.

Other University of Adelaide members of the research team include Dr Trevor Worthy and Professor Alan Cooper from the School of Earth and Environmental Sciences.

The team's findings were published last month in the *Proceedings of the Royal Society B: Biological Sciences*, an international biological research journal.

■ Story by Candy Gibson

Recognition for health research

Four researchers in the School of Population Health and Clinical Practice have been recognised with prestigious national and Australasian awards.

Professor Alexander (Sandy) McFarlane, Head of School Professor Konrad Jamrozik, Professor Janet Hiller and Associate Professor John Moss have all been recognised for their research and other contributions within the health arena.

Professor McFarlane has become the 11th recipient of the Founders Medal of the Australasian Society for Psychiatric Research. The medal is awarded annually to someone who, over their entire career, has made a significant contribution to psychiatric research.

This is the second major award to Professor McFarlane this year. The Royal Australian and New Zealand College of Psychiatrists, earlier this year, awarded him their Organon Senior Research Award for the most significant contribution to psychiatric research over the past five years in Australia and New Zealand.

Professor McFarlane is internationally renowned as an expert in the impact of disasters and post traumatic stress disorder, and is the Head of the University of Adelaide node of the Centre of Military and Veterans' Health.

Professors Jamrozik, Hiller and Associate Professor Moss are recipients of three of the 23 inaugural Fellowships awarded by the Public Health Association of Australia.

All three have been involved with public health for many years. Janet Hiller led the establishment of Adelaide Health Technology Assessment which provides specialist advice to the national governments of Australia and New Zealand on health care policy and practice.

John Moss was first appointed to the University's fledgling public health unit in 1973, and has since developed an extensive program in health economics and health services (delivery) research.

Professor Jamrozik is internationally known for his work on tobacco control. He has taught and researched various fields of public health around the world, and maintains clinical work in medical oncology.

■ Story by Robyn Mills



Yellow-eyed Penguin
Photo by Christian Mehlführer

Cricket ball quality takes a knock

continued from page 1

"Of the five we looked at, the Kookaburra was the only one manufactured consistently. The other four models revealed two different, yet externally indistinguishable constructions, which resulted in two clusters of different stiffness: soft and hard. In some cases, balls tested from the same model behaved like completely different balls."

Dr Fuss, who has previously conducted tests on the quality of manufacture and performance of golf balls, said the "softness" or "hardness" of the ball can have an impact on the game.

"The consistency of cricket balls may have severe implications during a match, as softer balls are more 'forgiving' because they have a smaller impact force, a longer contact with the bat, larger deflections as well as larger contact areas during impact, which, in sum, allows a batsman to place the ball more precisely.

"If the batsman doesn't hit the ball perfectly, a softer ball can still go in the direction aimed at by maintaining its velocity; a hard ball might slide off the bat," he said.

"The differences are difficult to discern with the naked eye."

Issues that may impact on the inconsistent performance of cricket balls include: different core sizes, different core materials (cork, rubber, or a mixture of the two), the tension of woollen twine inside the ball, and lacquer surface finish.

Dr Fuss said he believed a standard manufacturing process should be enforced to reduce the "lottery effect" of unseen inconsistencies.

"A more stringent quality control and testing standard is required for cricket balls in order to avoid unequal chances for both teams," he said.

Cricket is the second most popular sport in the world behind soccer, and the most popular sport in India.

Dr Fuss began this research project with Indian undergraduate student Vikram Balasubramanian at the Nanyang Technological University, Singapore, before joining the University of Adelaide this year.

The results of the study were published in the international journal *Sports Technology* earlier this year.

■ Story by David Ellis

Top music award goes to singer

■ Music

Soprano Daniela Jedrzejczak has won the \$1200 first prize in the highly prestigious Beta Sigma Phi Awards Competition at the University of Adelaide.

Daniela, known as Bella, is in her final year of the Bachelor of Music studying under the guidance of Guila Tiver at the Elder Conservatorium of Music.

Bella was one of four finalists. Second prize went to talented violinist Madeline Procopio and the finalist prizes to Anouvong Liensavanh, flute, and pianist Warwick Ambrose. The finalists' performances made for an exciting conclusion to this year's successful series of ELDERHALL lunchtimes concerts.

The awards were presented by Professor David Lockett, Director of the Elder Conservatorium of Music, and Dot Atkin from Beta Sigma Phi.



This is an international women's organisation named after the Greek words meaning "Life, Learning and Friendship". It has interest in the Arts, current affairs and in service to the community.

In thanking Beta Sigma Phi for the biannual awards, Professor Lockett acknowledged that he too had been a recipient, some years ago, of this highly prestigious award and how important and sought after it still is for students today.

The ELDERHALL lunchtimes concert series returns on Friday 6 March 2009 at 1.10pm with a recital by the exciting young Australian pianist Kristian Chong. Detailed concert brochures will be available at the end of January.

■ Story by Claire Oremland

Award-winning music student Daniela ("Bella") Jedrzejczak

Photo by Claire Oremland

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Desert researcher wins international award

■ Environment



A lifetime of research in some of the world's driest regions has brought international acclaim to the University of Adelaide's Professor Emeritus Martin Williams.

Professor Williams received the 2008 Farouk El-Baz Award for Desert Research at a meeting of the Geological Society of America in Houston.

Professor Williams said he was delighted to receive this award. "I also owe an enormous debt of gratitude to my desert travelling companions in four continents: they shared the simple joys and the occasional dangers and hardships with dignity and stoicism."

Professor Williams came to the University of Adelaide in 1993 as Director of the Mawson Graduate Centre for Environmental Studies and Foundation Professor of Environmental Studies.

From his earliest fieldwork in the Libyan Desert in 1962, he has pursued an active program of research on landscape evolution and climatic change in the Sahara, the Nile basin, Rajasthan in India, Inner Mongolia, the Flinders Ranges and the Afar and Kenya rifts.

"Martin is unquestionably deserving of this award in light of his extensive, long sustained and high quality desert work executed in multiple continents," said research collaborators from the University of Illinois in the award citation.

"He has also amply demonstrated that he is an inexhaustible ditch digger, and a prodigious teller of tales of adventure and misadventure on every soil-bearing continent."

Professor Williams is author of over 200 scientific papers, including 12 in *Nature*, and is author or editor of 11 books.

His research interests range from early human origins, soils and landforms to the reconstruction of prehistoric environments and geologically recent climatic changes.

His work has often been applied to resolving issues of land degradation and poverty in semi-arid regions of the world.

He is a member of the Scientific and Technical Advisory Panel of the Global Environment Facility and has been a frequent adviser on the control of desertification in Africa, Central Asia and China.

Last year he was elected an Honorary Life Member by the International Union of Quaternary Research and was also awarded the highest honour of the Royal Society of South Australia, the Verco Medal.

"Martin is unquestionably deserving of this award in light of his extensive, long sustained and high quality desert work executed in multiple continents"

Above:
Professor Emeritus
Martin Williams in the
Mauritanian desert

■ Story by Robyn Mills



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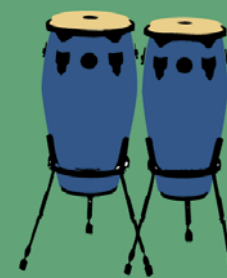
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Quartet rediscovers musical landscape

■ Music

“To discover or revisit a work is to literally recreate it, just as an actual landscape can be created anew for everyone who experiences it”

Above (from left): The Australian String Quartet: Sally Boud, Rachel Johnston, Sophie Rowell and Anne Horton

Photo by Jacqui Way

The Australian String Quartet (ASQ) has taken inspiration from South Australia’s spectacular Kangaroo Island to create the program for its 2009 national season.

Following a visit to Kangaroo Island, the ASQ shaped the 2009 program to reflect the island’s “rich, rugged and strikingly beautiful landscape”.

“As quartet players, the masterworks of the repertoire are our landscapes,” said ASQ violist Sally Boud.

“To discover or revisit a work is to literally recreate it, just as an actual landscape can be created anew for everyone who experiences it.

“The music lives and breathes through the performance to create a powerful connection with the audience.

“The natural majesty of the Australian landscape can be a real source of inspiration for a musician,” she said.

Established in 1985, the ASQ is Quartet-in-Residence at the University of Adelaide’s Elder Conservatorium of Music.

The ASQ’s 2009 program includes well-loved works from Beethoven to Haydn, Bartok, Arriaga and Schumann, as well as music from some of Australia’s best-known and regarded composers.

The season presents four national concert tours, each named to reflect the repertoire: *Landscapes* (March), *Dedication* (May), *Provenance* (July-August) and *Alchemy* (October).

Program highlights include: Schumann’s Piano Quintet, with the winner of the 2008 Sydney International Piano Competition, Konstantin Shamray; Schubert’s epic G major Quartet; Haydn’s op.77 no.1 and the world premiere of a newly commissioned work from internationally acclaimed Australian violist and composer Brett Dean, which also sees him joining the ASQ in performance.

“It is a rare opportunity to be able to perform and work with a composer and for us it will be an experience that we will cherish. Brett Dean is a master composer and player and it is a great joy to premiere this work with him,” Boud said.

Continuing the ASQ’s ongoing commitment to performing Australian music, the 2009 season also features two distinctive works, Nigel Westlake’s *High Tension Wires* and Gordon Kerry’s *Variations*.

The current membership of Sophie Rowell and Anne Horton (violins), Sally Boud (viola), and Rachel Johnston (cello) was established in 2006. This combination of

players originally came together as the Tankstream Quartet. This ASQ is the only Australian group to have been participants in the prestigious chamber music class of the Alban Berg Quartet at the Cologne Hochschule für Musik, and also holds the distinction of having won more international chamber music competitions than any other ensemble in Australian history.

The 2009 subscription season is now on sale, including dinner packages. Phone 1800 040 444 or visit the website: www.asq.com.au

In Adelaide, the ASQ will play at the Adelaide Town Hall on 12 March, 18 May, 10 August and 28 October 2009.

FREE ASQ giveaway



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