

Adelaidean

NEWS FROM THE UNIVERSITY OF ADELAIDE

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Awards spotlight science of light

Story on page 5

A year of highlights

As we approach the end of 2010, we can all look back and be very proud of where this University stands.

There have been many highlights in 2010.

Our \$400 million capital building program for new facilities for teaching, research and students is now well underway. If you've been down towards the lower level of campus you will have seen that the flagship Engineering, Computer and Mathematical Sciences building is now open and providing a 6 Star Green rating learning environment for our students.

A new science precinct which will include the Institute for Photonics and Advanced Sensing and other facilities for research and teaching will soon be under construction.

We are transforming on-campus student life and learning by turning the Hughes Plaza into a student learning hub, which will integrate learning and recreational spaces for students with a variety of other services. It's an exciting concept and will give our students a place to gather at the heart of the campus and encourage social interaction.

This will be the largest and most dynamic student learning hub in Australia and will set the benchmark for this sort of student facility in universities across the country.

The University has maintained its global reputation for consistently placing in the top 1% of universities in the world.

This comes in addition to our \$50 million commitment to our six new research Institutes over five years, and further investment in other research centres. Over the past year

we have launched the Robinson Institute, the Environment Institute, the Institute for Photonics and Advanced Sensing, the Institute for Minerals and Energy Resources, the Waite Research Institute and, in the near future, the Institute of Molecular Pathology. Through these research institutes the University is raising our research outcomes, strengthening our research reputation internationally and increasing the impact we can make on the community.

We've had some significant sporting success too, with the Adelaide University Boat Club winning the prestigious Oxford and Cambridge Cup for the second year in a row at the recent University Games in Perth – having won it for the first time since 1979 with their victory last year. Our rowers, representing all Australian universities, also won the Trans Tasman Trophy against New Zealand on Otago Harbour, Dunedin.

This comes on top of a great winter season of premierships for our University sports teams as a whole – collectively known as "the Blacks". Our teams won no less than 10 premierships this winter – one in soccer, two in hockey, two for touch football, two for baseball and three for our Aussie Rules teams.

These are just a few of our year's highlights but together they show our determination to keep building on our great tradition of excellence in research and scholarship, for the benefit of our staff and students and the wider community.



JAMES A. McWha
Vice-Chancellor and President

Adelaidean

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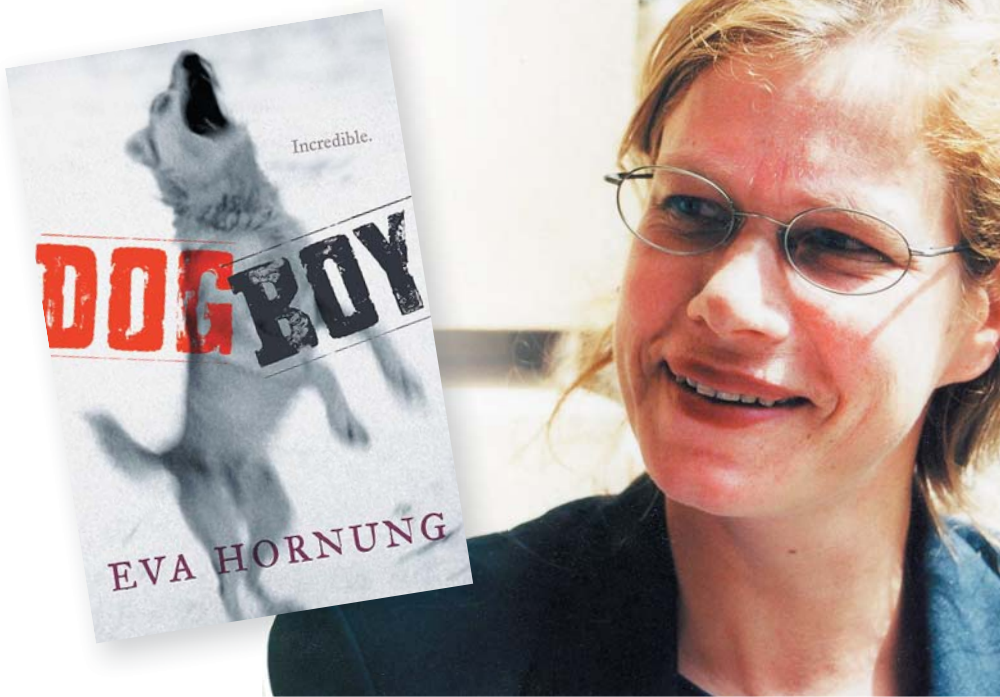
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Adelaide novelist wins richest literary prize

Award-winning novelist and University of Adelaide staff member Eva Hornung has won the richest literary prize in Australia for her sixth novel, *Dog Boy*, described by judges as “a remarkable work of international standing”.

Dr Hornung (formerly Sallis) has been awarded the \$100,000 Prime Minister’s Literary Award in the fiction category, impressing judges with her story of a young Russian boy who is adopted by a pack of wild dogs after being abandoned by his family.

It is the latest accolade for the University of Adelaide PhD graduate and Research Fellow, who has won a string of awards for her creative writing, including *The Australian/Vogel Literary Award*, the Nita May Dobbie Award, the Asher Literary Award and the Steele Rudd Literary Award.

Dr Hornung – who has both a Masters and PhD in English Literature from the University of Adelaide – supervises students in the Creative Writing program and was the University’s first Writer-in-Residence in 2008.

Her previous novels include: *Hiam*, *The City of Sealions*, *Mahjar*, *Fire Fire* and *The Marsh Birds*.

Dog Boy is inspired by news reports of the capture of a street boy who lived with stray dogs in the Russian capital, Moscow. The book, published this year, has already been translated into 16 languages.

The judging panel praised Dr Hornung for her exploration of what it might like to be a dog from a human perspective, describing

the novel as a “testing but triumphant feat of the imagination”.

Dog Boy has been shortlisted for a number of other awards, including the Victorian Premier’s Award for Fiction, the Australian Literature Society Gold Medal and *The Age Book of the Year*, but was ineligible for the prestigious Miles Franklin Award, which is reserved for books that depict Australian life.

Among those shortlisted in the fiction category for the Prime Minister’s Literary Awards was another University of Adelaide staff member, Dr John Coetzee, for his fictionalised memoir, *Summertime*. Dr Coetzee, who won the 2003 Nobel Prize for Literature and two Booker Prizes (1983 and 1999), is a Research Fellow in the Faculty of Humanities & Social Sciences.

The Head of the English Discipline at the University of Adelaide, Dr Mandy Treagus, said *Dog Boy* had propelled Eva Hornung onto the world stage as an accomplished writer of extraordinary imagination.

“Her contribution to the Creative Writing program at Adelaide has been, and continues to be, significant,” Dr Treagus said.

Story by Candy Gibson

Above: Novelist and staff member Eva Hornung

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Focus on universal flu vaccine

A University of Adelaide researcher is leading a collaboration between Australia and Indonesia on the production of a universal flu vaccine.

“The frequent arising of new influenza strains represents the greatest challenge to health authorities as it renders currently available vaccines ineffective,” said Dr Mohammed Alsharifi, the Head of the Vaccine Research Group at the School of Molecular and Biomedical Science, University of Adelaide.

“While annual vaccine reformulation appears to be effective against closely matched strains of influenza, the current method is not effective against drifted strains as well as new pandemic strains, as illustrated by the recent H1N1 pandemic. This raises the need for a new technology,” he said.

Dr Alsharifi said the recent experience of swine flu and the continuing fears of the medical, scientific and world health communities of the sudden emergence of a deadly bird flu strain, meant that a new approach to flu vaccines needs to be contemplated.

“What we need is some protection against all influenza virus A strains, including any emergent pandemic virus,” he said.

A new technology, invented by Dr Alsharifi (University of Adelaide) and Professor Arno Müllbacher (Australian National University), has helped to generate a new influenza vaccine – GammaFlu™ – that provides cross-protection against current influenza

viruses as well as any other unknown strains that may arise in the future.

“Our technology is expected to change the world of vaccination, as it can be implemented to produce many other vaccines,” Dr Alsharifi said.

To translate their basic scientific discoveries into clinical application, both scientists established the company Gamma Vaccines Pty Ltd in July 2009. Gamma Vaccines is now commercialising its gamma-irradiated influenza vaccine to capture part of the global market for flu vaccines, which is estimated at US\$4 billion annually.

Since its establishment, the company has devised a significant Global Health Initiative as part of its commercialisation plans, aimed at making its technology available to developing countries.

“As our near neighbours, with a population of over 240 million, Indonesia represents an exciting opportunity to take this technology from the laboratory to the people,” Dr Alsharifi said.

Gamma Vaccines has now signed a Memorandum of Understanding with Indonesian pharmaceutical companies PT Bio Farma and PT Soho Industri Pharmasi, establishing a three-way collaboration that will see the development, manufacturing, clinical trials and distribution of the vaccine in Indonesia and other ASEAN countries.

As part of the collaboration, a team of scientists from PT Bio Farma (the Indonesian State-owned vaccine manufacturer) will be trained in various aspects of the new technology, including production, safety and quality control. This training will be held in the Vaccine Research Laboratory at the University of Adelaide.

Gamma Vaccines is headquartered in Canberra. The company has attracted seed investment funds and early stage innovation grants from the Federal Government and the Australian Capital Territory Government to support its development of a universal flu vaccine.

PT Bio Farma is one of the largest vaccine companies in the ASEAN region, with a 120-year history of producing sera and vaccines. Founded in 1890 in Indonesia, Bio Farma is a founding member of the Developing Country Vaccine Manufacturers Network and is a supplier of vaccines to UN agencies and the global market.

PT Soho Industri Pharmasi is a part of The Soho Group based in Jakarta, and is one of Indonesia’s fastest growing pharmaceutical companies.

Above: People wearing surgical masks on public transport in Mexico City during the outbreak of swine flu in 2009

Photo from Flickr:
www.flickr.com/photos/eneas/3471986083

Spotlight on science of light

For University of Adelaide physicist Professor Tanya Monro, 2010 will be a year to remember.

Professor Monro, who is the Director of the University's Institute for Photonics & Advanced Sensing (IPAS), has this year won five major awards for her work.

Much of Professor Monro's work involves the generation and control of light using completely novel optical fibres, many of which are manufactured at the University. This enables the creation of new tools for scientific research and solutions for problems in areas such as defence, medical diagnostics, remote environmental monitoring and food and wine production.

IPAS brings together over 130 physicists, chemists and biologists to create these new sensing technologies. Since 2005, Professor Monro has generated more than \$65 million in research funding and won numerous awards for her work. This year has added greatly to those awards.

In August, Professor Monro jointly won the top prize in the South Australian Science Excellence Awards by being announced South Australian Scientist of the Year (shared with Professor Angel Lopez, Centre for Cancer Biology, SA Pathology).

In October, she won the South Australia Telstra Business Women's Award in the "White Pages Community and Government" category, which led to her being automatically nominated for the national award. Last month, Professor Monro took out the national Telstra Business Women's Award, which recognises the achievements of inspirational women who work in government departments, statutory bodies or not-for-profit organisations. November also saw her being named Advantage SA's South Australian of the Year in Science (again shared with Professor Angel Lopez).

And in perhaps the most significant honour she has won this year, Professor Monro was announced as South Australia's Australian of the Year 2011. This makes her a finalist for the national Australian of the Year awards, which will be announced in Canberra on the eve of Australia Day 2011. The awards celebrate the achievements of eminent Australians who are considered "role models for us all" in helping to create a better Australia.

Professor Monro was also a finalist in two of this year's other major science awards:



the Australian Museum Eureka Prize "Leadership in Science" category and the inaugural Scopus Young Researcher of the Year Awards "Physical Sciences" category.

She said the awards provided "a great opportunity to get the message out there that science is not just about the work of individuals, it's really about the work of a whole team of researchers".

"What these awards do is give us a real boost of confidence that the vision our team has is the right one. It also shows that we're not the only ones excited about our work – other people are excited about what we're trying to achieve," Professor Monro said.

She said that each of the awards was significant in its own way. "For example, the Scientist of the Year award and the nomination for the Scopus award are significant because they are recognition of the quality of your science from your peers and of the impact of this science on the international scientific community.

"The Telstra Business Women's Awards recognise that scientists have to apply a range of other business skills to their work:

selling their vision to commercial partners, negotiating deals, controlling complex budgets, motivating high-performing teams, communicating to the media, as well as running the business of scientific research and development."

She said the SA Australian of the Year Award came "completely out of the blue".

"It's grounding when you see the quality of the other people nominated for that award and what they contribute to society. The exciting thing about this award is that it recognises the importance of science to our community. One of the biggest challenges for any scientist is to break that stereotypical view of what science is and what we do. Science is an extremely creative, collaborative process. It's wonderful to see the value of science being acknowledged in this way," she said.

Story by David Ellis

Above (from left): Professor Tanya Monro, winner of the Telstra Business Women's Award in the "White Pages Community and Government" category, with award sponsor Michelle Sherwood, from Sensis

Photo courtesy of the Telstra Business Women's Awards

Investigator's fertility breakthrough for female cancer patients

University of Adelaide reproductive health researcher Dr Kylie Dunning has been named the 2010 Young Investigator Award winner for her work to help preserve the fertility of female cancer survivors.

Dr Dunning, a postdoctoral researcher from the Robinson Institute and the Discipline of Obstetrics and Gynaecology at the University of Adelaide, examined the role of fat metabolism in the growth and development of ovarian tissue in the laboratory.

"Major advances in medical research have led to improved cancer therapies and increased survival rates in patients, but the use of life-saving chemotherapy and radiation therapy often leads to infertility," Dr Dunning said.

"In Australia, girls as young as 13 years old affected by cancer can have a portion of their ovaries cryopreserved for future use. What we've discovered may increase the chances of these women starting a family later in life.

"The latest technology for female fertility preservation involves growing ovarian tissue in a three-dimensional ball of gel in the lab, enabling eggs to grow and develop surrounded by their support cells, known collectively as the follicle."

This technology enables the growth of eggs in the laboratory that can then be fertilised and form embryos as in traditional IVF. In the future, these embryos could be returned to the womb to form a pregnancy and a healthy baby. By using this technology it avoids having to put back the cryopreserved ovarian tissue, which may contain cancer cells.

Dr Dunning said the use of 3-D follicle growth was extremely promising, however the growth of eggs capable of forming a healthy embryo and a baby required further development.

"I've found that fats are a vital energy source for follicle and egg development. In fact, we've discovered that increasing the follicle and egg's utilisation of fat during 3-D follicle growth significantly improves subsequent embryo development," Dr Dunning said.

The Young Investigator Award, now in its 11th year, rewards scientific excellence in South Australia's young researchers and



their ability to communicate and "sell" that science.

As winner, Dr Dunning received The Hon. Carolyn Pickles Award of \$10,000. Prizes of \$3000 each were awarded to the two runners up, Chantelle McIntyre and Zlatko Kopecki, who are both PhD candidates from the School of Paediatrics and Reproductive Health at the University of Adelaide.

Chantelle is investigating replacing defective genes to prevent brain deterioration in children with Sanfilippo Syndrome, a rare inherited disease where the body cannot metabolise sugar.

Zlatko is researching the role of a specific protein involved in genetic blister formation

in fragile skin disorders, looking at reducing its levels to improve wound healing.

The award is an initiative of the Children, Youth and Women's Health Service and the Faculty of Health Sciences at the University of Adelaide. The University of South Australia and Flinders University are also partners in the award, together with the Women's and Children's Health Research Institute and the Women's and Children's Hospital Foundation.

Story by Candy Gibson

Above: Young Investigator Award winner for 2010 Dr Kylie Dunning

Photo by Luke Simon

Energy experts working on smarter, greener airport

Adelaide Airport aims to become an Australian leader in clean energy use thanks to a new three-year, \$750,000 partnership with the University of Adelaide.

Under the partnership – launched last month by Transport and Energy Minister the Hon. Patrick Conlon – the University's Centre for Energy Technology (CET) will undertake research to develop clean energy solutions for Adelaide Airport.

Minister Conlon commended Adelaide Airport Limited and the Centre for Energy Technology for forging a partnership that would have long-term benefits.

"This partnership further enhances South Australia's reputation as a leader in 'clean and green' technologies and sustainable business practices," Mr Conlon said.

"The commitment from Adelaide Airport to invest in the University of Adelaide's research will support innovation and provide both parties with strategic benefits. We are firmly supportive of new initiatives that will lead to new technologies that improve the environment and reduce greenhouse gas emissions in South Australia."

Adelaide Airport Limited (AAL) Managing Director Phil Baker said AAL aimed to become the most ecologically sustainable airport in Australia.

"Running a successful airport involves a great deal of energy use, which in turn

results in a large amount of greenhouse gas emissions. Simply putting money into paying for carbon offsets doesn't solve the underlying issues," Mr Baker said.

"At Adelaide Airport, we want to invest in the long-term future of our operations. This is why we have approached the Centre for Energy Technology at the University of Adelaide to partner with us to find cleaner, greener solutions."

In order to help reduce AAL's carbon footprint, University staff and postgraduate students will assess the airport's biggest areas of energy use and develop clean energy solutions that are specifically targeted to make the most impact.

"Usually, the biggest percentage of any large organisation's carbon footprint is the direct result of energy use, so it makes perfect sense for the Centre for Energy Technology to partner with Adelaide Airport on this major project," said the Director of CET, Professor Gus Nathan.

"We're excited by the foresight and leadership on this issue being shown by Adelaide Airport. We anticipate significant benefits from this partnership, not only for the airport but also for other public spaces,

such as shopping centres and other airports overseas, in clean technology."

Specific issues to be investigated under the partnership include:

- the use of renewable energy generation both on and off site – such as wind and solar energy;
- novel methods to reduce energy from heating, cooling and lighting;
- alternative approaches for ground transportation;
- adapting new technologies to AAL's unique facilities and requirements.

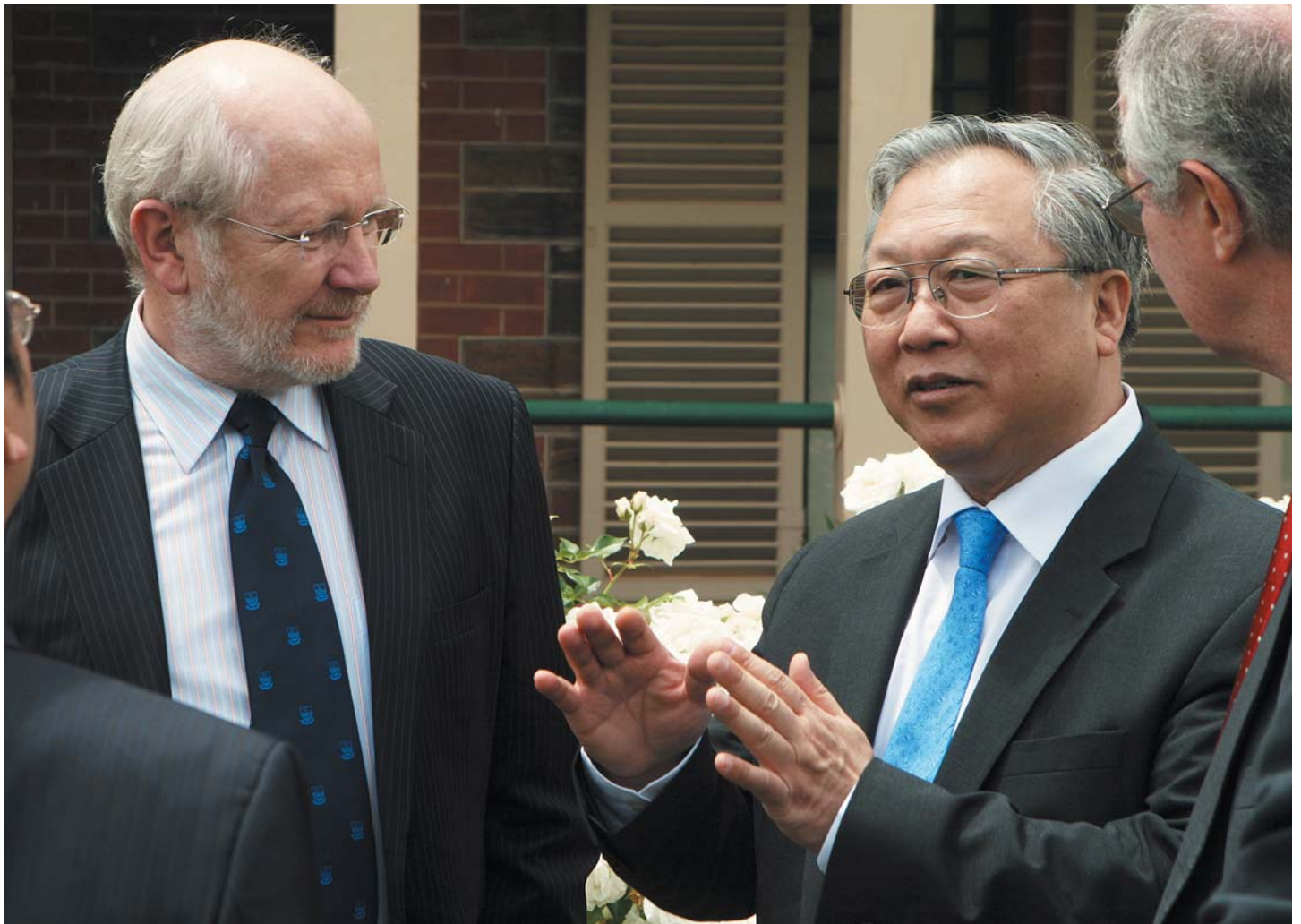
"In addition to any benefits Adelaide Airport might receive from this partnership, our high visibility to the public makes this a perfect opportunity to raise community awareness of the long-term benefits of sustainable energy," Mr Baker said.

The funding for this partnership will also support two scholarships for University of Adelaide PhD students to work on clean energy projects.

Story by Kate Potter and David Ellis

Photo courtesy of Adelaide Airport Limited





MOU signed with Chinese science leaders

Australia's agricultural research ties with China have been strengthened during a recent visit to the University of Adelaide's Waite Campus from the President of the Chinese Academy of Sciences.

Professor Lu Yongxiang, who is also Vice-Chairman of the National People's Congress in China, led a delegation of senior members of the Chinese Academy of Sciences to Adelaide last month. They were accompanied by representatives of the Chinese Embassy, the Department of Innovation, Industry, Science and Research, and the Australian Academy of Science.

Professor Lu and his delegation toured some of the world-class research facilities at the Waite Campus, such as the Australian Centre for Plant Functional Genomics, the Australian Plant Phenomics Facility (The Plant Accelerator), and the Hickinbotham Roseworthy Wine Science Laboratory, as well as historic Urrbrae House.

The tours concluded with the signing of a Memorandum of Understanding (MOU) for closer cooperation between the University and the Academy's Institute of Genetics and Developmental Biology.

The MOU was signed by the University's Deputy Vice-Chancellor and Vice President

(Research), Professor Mike Brooks, and by Professor Yang Weicai, Deputy Director General of the Academy's Institute of Genetics and Developmental Biology.

"This was a very important visit for the University of Adelaide and our Waite Campus, one that has strengthened agricultural research linkages between China and Australia," said the University's Vice-Chancellor and President, Professor James McWha, who hosted an event for the visitors.

"Many of the agricultural research areas that are of great importance to Australia's future are also important to China. We share a critical interest in food security, with challenges to food production common to our nations, such as climate change, decreasing volume and quality of water resources, and salinity.

"Under the MOU, the University and the Academy have agreed to investigate cooperation in a range of areas, such as joint research activities, academic staff exchanges, and the potential for

commercial development of our joint research," Professor McWha said.

He said the MOU was "further evidence of the international significance of the research being conducted at our Waite Campus, not only by University of Adelaide staff and students but also by our many co-located campus partners and collaborators".

"Given the recent establishment of our Waite Research Institute, and the new ARC Centre of Excellence in Plant Cell Wall Biology at the Waite, this is a timely partnership. We hope that cooperation will yield many positive benefits for our State, our nation and for China," he said.

Story by David Ellis

Above: The University's Vice-Chancellor and President, Professor James McWha, with the President of the Chinese Academy of Sciences, Professor Lu Yongxiang, at Urrbrae House, Waite Campus

Photo by Scott Oates

Healthy eating – what are the facts?

Most of us think we know which foods we should be eating to maximise our health – but do we really know? And do the world's experts agree?

Leading nutrition researchers from around the globe will discuss the confusion surrounding messages on nutrition at a free public forum in Elder Hall at the University of Adelaide, 5.30pm on Wednesday 8 December.

The forum, *Food for Health – separating myths from facts*, will be held ahead of a two-day international workshop organised by the new FOODplus Research Centre. The FOODplus Research Centre will be officially launched during this two-day event.

“Our free public forum is a unique opportunity to hear from some of the world's finest research specialists in their field about one of the most important topics of our lives – nutrition, what goes into our food and how it affects us,” said forum moderator Professor Bob Gibson, Co-Director of the FOODplus Research Centre and Professor of Functional Food Science at the University of Adelaide.

“Members of the public will have the opportunity to get some take home messages about healthy eating and have their own nutrition-related questions answered.”

Professor Gibson said there were many questions about our food that needed answering.

These included issues such as:

- why do we see an increase in health problems related to over-consumption and nutritional deficiencies, despite having more information about our food than ever before?
- when it comes to nutrition information, what are we to believe?
- why are health messages not getting through?
- is current agriculture prioritising food production over nutritional quality?
- what is the role of food manufacturers in providing healthy food choices?
- how does food have a role in preventing disease?
- what is the role of research in helping us to make informed choices, and improving the food we eat?

“There is good evidence that if people consume nutrient-rich foods they will have better health outcomes than those consuming energy-rich but nutrient-poor foods. With obesity and related health issues on the rise in our society, getting that message across is now more important than ever,” Professor Gibson said.

Experts on the forum panel include highly regarded nutrition researchers from Australia and overseas: Professor Bo Lönnerdal (UC Davis, University of California, USA), Professor Peter Aggett (University of Central Lancashire, Preston, UK), Professor Dennis Bier (Baylor College of Medicine, USA), Professor Maria Makrides (University of Adelaide and Women's and Children's Health Research Institute, Co-Director of FOODplus), Professor Jennie Brand-Miller (University of Sydney), and Professor Manny Noakes (CSIRO).

The forum will be followed on Thursday and Friday, 9-10 December, by an international workshop called Nutrition Adelaide 2020, jointly organised by FOODplus and the Nutrition Committee, Australian Academy of Science.

The workshop is aimed at identifying the research gaps between sustainable agriculture and human health over the next decade. The official launch of the FOODplus Research Centre will be held on Thursday 9 December.

FOODplus is a joint venture between the University of Adelaide and the Women's and Children's Health Research Institute (WCHRI). It aims to improve human health through research, linking food, nutrition and sustainable agriculture.

Key areas of research for FOODplus include:

- the roles of fats and lipids in animal and human nutrition and the health benefits of omega-3 fatty acids;
- the potential for the development of healthier baked goods;
- identifying which foods stimulate allergies and which may protect against allergies; and
- how nutrition in pregnancy and early life can improve the health of the offspring later in life.

“FOODplus brings together health researchers with plant and animal scientists, growers and food producers with the ultimate aim of producing benefits for us all,” said Professor Gibson.

www.adelaide.edu.au/foodplus

Story by Robyn Mills

Photo by iStock





Farewell to Frank Fenner

One of Australia's greatest scientists, University of Adelaide medical graduate Frank Fenner AC CMG MBE, has died at the age of 95.

Emeritus Professor Fenner is best known for his work in eradicating smallpox and for the control of Australia's rabbit plague.

Professor Fenner graduated in medicine from the University of Adelaide in 1938 and completed his Doctor of Medicine degree in 1942.

He had an outstanding career as a microbiologist and world expert on pox virus. He conducted pioneering studies to investigate how common virus infections spread through the body and produce disease, and he played a major role in the introduction of myxoma virus to combat Australia's rabbit plagues, which were causing great harm to the agricultural industry and the environment.

Professor Fenner was Chairman of the Global Commission for the Certification of Smallpox Eradication. In 1980 Professor Fenner announced the eradication of smallpox to the World Health Assembly.

He was Director of the John Curtin School of Medical Research, Australian National University (ANU) before becoming founding Director of the Centre for Resource and Environmental Science at ANU from 1973 to 1979. He was also a Founding Fellow of the Australian Academy of Science.

He received numerous awards and honours including the Japan Prize – a prize for applied science regarded as the equivalent of the Nobel Prize. He was made a Companion of the Order of Australia, a Commander of the Order of St Michael and St George and a Member of the British Empire.

Other major honours included the Copley medal of the Royal Society (1995), Albert Einstein World Award for Science (2000), Clunies Ross Lifetime Contribution National Science and Technology Award (2002), WHO Medal, ANZAAS Medal, ANZAC Peace Prize, Matthew Flinders Medal, Britannica Australia Award for Medicine and 2002 Prime Minister's Prize for Science.

In 2007, Professor Fenner was awarded a Doctor of the University (*honoris causa*) from the University of Adelaide.

Above: Professor Frank Fenner with sister Winifred after being awarded a Doctor of the University (*honoris causa*) from the University of Adelaide in 2007

Photo by Candy Gibson

Nursing program comes of age

The University of Adelaide's nursing program has celebrated its 15th anniversary, with plans to become a fully fledged School from 1 January 2011 and significantly boost student numbers within five years.

Since its formation as a Discipline in 1995 in collaboration with the Royal Adelaide Hospital, the Nursing program has grown to more than 550 students across a whole suite of programs.

In 2011, Nursing will become a stand-alone School within the University of Adelaide's Faculty of Health Sciences, investing in clinical research and helping to shape the future of health care in South Australia.

Professor Alison Kitson, the Head of the Nursing Discipline, said the transition to a School would raise its profile and strengthen existing partnerships with industry, contributing to improved, clinically focused teaching and research.

"We have plans to double our intake in the Bachelor of Nursing program from 100 new students per year in 2011 to more than 200 by 2015," Professor Kitson said.

"We are also introducing a new Graduate Entry Masters program for graduates who want to pursue nursing as a profession. This will appeal to mature students with different life experiences."

The University has expanded its nursing programs beyond Adelaide, with a Bachelor program offered in Singapore, and postgraduate coursework degrees delivered online in a flexible program to suit working nurses.

"We are also building strategic alliances with nursing colleagues at universities in Singapore, Malaysia and Vietnam," Professor Kitson said.

An increasingly popular postgraduate course is the Master of Nurse Practitioner, which gives registered nurses the skills to perform specialised clinically based functions, such as prescribing, ordering pathology tests, medical imaging and referrals in some cases.

"This qualification will enable nursing care to be more integrated and centred on the needs of the patient, not to mention being more cost effective for the health service."

The anticipated demand for these skills, particularly in rural and regional areas, is expected to see Nurse Practitioner student numbers at the University of Adelaide grow substantially in the next few years.

"From the start, the Discipline of Nursing has endeavoured to be one of Australia's most progressive nursing departments," Professor Kitson said. "We are committed to building an enviable reputation for our development of clinical practice and high-quality research."

The Discipline hosted a Crystal Celebration at the National Wine Centre on 25 November to mark both its 15th birthday and the transition from a Discipline to a School in 2011.

Story by Candy Gibson

Below: Nursing graduate Rosemary Clatworthy, who graduated as one of the top students in her year

Photo by Michael Mullan





Vet school leads brain gain

The number of students and staff at the University of Adelaide's Roseworthy Campus is expected to reach as many as 900 within the next few years, exceeding the University's expectations and resulting in a major "brain gain".

These projections were announced at the official launch last month of the University's new Veterinary Health Centre by the Minister for Agriculture, the Hon. Michael O'Brien, at the Roseworthy Campus.

With state-of-the-art facilities for teaching, research and animal care, the Veterinary Health Centre is the first of its kind in the State and among the best facilities of its kind in the world.

It is part of a \$37 million investment for the School of Animal and Veterinary Sciences, with joint funding from the Commonwealth (\$15m), the State (\$5m) and the University (\$17m), and is a major project in the University's \$400 million capital works program.

"The opening of the new Vet Health Centre realises the dream of many for South Australia to have its own vet school. It represents a significant milestone in the history of our Roseworthy Campus, securing its place in the future of this State, the local community and the agricultural sector," said the University's Vice-Chancellor and President, Professor James McWha.

Minister O'Brien said the Vet School had already exceeded expectations only three years after being established.

"When the University first announced a feasibility study for the Vet School back in 2006, there were 200 students at Roseworthy Campus. The University now expects to have more than 700 students at Roseworthy by 2012," Mr O'Brien said.

"When you consider that local students were previously lost to interstate universities for veterinary studies, as well as the number of staff now required to work at the campus, this represents a major brain gain for Adelaide's north and for the State. It will service the needs of the community and the agricultural sector now and into the future."

Designed by leading architecture, design and planning firm HASSELL, the Veterinary Health Centre contains integrated teaching and research spaces, as well as a Companion Animal Health Centre (for cats, dogs and other pets) open to the public. Facilities include a diagnostic pathology laboratory, intensive care, ultrasound, radiology, surgical theatres and other specialist facilities.

Staff at the Veterinary Health Centre range from qualified vets to vet nurses, academics, specialists and support staff, and have been employed from around Australia and overseas.

"In addition to teaching undergraduate students and training the next generation of vets, our new Vet Health Centre will also become a focal point for ongoing professional development of current vets and vet nurses," said the Head of the School of Animal and Veterinary Sciences, Professor Gail Anderson.

"There's a huge amount of support for our School from within the South Australian vet industry. We now have an opportunity to provide ongoing professional development for the industry, to build the Vet School into something that services their needs as well as the needs of the community, industry and farming," she said.

To see a story about the new Veterinary Health Centre on YouTube, go to: www.youtube.com/watch?v=ovWgLF85688

Story by David Ellis

Above: Head of the School of Animal and Veterinary Sciences, Professor Gail Anderson, and the University's Vice-Chancellor and President, Professor James McWha, with "Hamish" at the official opening of the new Veterinary Health Centre

Photo by Mark Dohring

Life impact – \$45 million for

More than \$45.7 million has been awarded to University of Adelaide researchers for new projects that aim to make a major difference to people's lives.

Recent funding announcements from the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC) will support 101 new research projects starting next year, including a number of research fellowships.

University of Adelaide researchers and affiliates secured \$20.8 million in ARC grants and \$24.9 million in NHMRC grants, making this one of the University's best funding results on record.



For more information about research at the University of Adelaide, go to: www.adelaide.edu.au/research

Story by David Ellis and Candy Gibson

new research

National Health and Medical Research Council (NHMRC)

The NHMRC funding includes \$22.8 million to launch 45 new research projects, helping to tackle some of the country's most serious health problems, including breast cancer, stroke and diabetes.

Deputy Vice-Chancellor and Vice President (Research) Professor Mike Brooks said the NHMRC funding announcement was an outstanding result for the University, which is now rated among the top 50 health research institutions in the world.

"This funding demonstrates the depth and quality of our health and medical researchers, and the commitment they have shown over many years to finding breakthroughs for some of society's most critical health problems," he said.

Some key projects include:

- \$1.3 million to Professor David Callen (School of Medicine) for three separate projects investigating the role of Vitamin D in breast cancer, as well as developing new pathways to stop the spread of tumours. Breast cancer is the

most common cancer among women in Australia, with 13,600 new cases diagnosed each year, claiming the lives of around 2800 women annually.

- \$1.08 million to Professor Caroline Crowther (School of Paediatrics and Reproductive Health) for two individual projects: \$632,979 to investigate whether the right diet and lifestyle can help treat borderline gestational diabetes in pregnant women; and \$447,281 to review the link between corticosteroids and improved health in pre-term babies;
- \$891,732 to Professor Julie Owens (Head, School of Paediatrics and Reproductive Health) for a project investigating the link between growth-restricted babies and diabetes and obesity in later life.
- \$744,021 to Professor Wayne Tilley (School of Medicine) to research the role that male hormones play in protecting women from developing breast cancer and improving treatment options;

- \$662,065 to Associate Professor Kaye Roberts-Thomson (School of Dentistry) to test a non-invasive treatment for dental decay in young children;

Three researchers have also won NHMRC Research Fellowships totalling \$2.1 million over five years – awarded to Associate Professor Allison Cowin (Women's and Children's Health Research Institute and Discipline of Surgery), Professor Sharad Kumar (Centre for Cancer Biology, SA Pathology, and Professor of Medicine), and Professor Ray Rodgers (School of Paediatrics and Reproductive Health and the Robinson Institute).

Their research includes, respectively: new technologies to promote healing of chronic wounds, such as burns and ulcers; the functions of cell death and inactivating proteins, and their roles in diseases such as cancer, hypertension, lung inflammation and anaemia; and prevention and treatment of ovarian diseases, which are a major cause of infertility.

Australian Research Council (ARC)

More than \$14.6 million in ARC funding has been awarded to University of Adelaide researchers for 43 new Discovery and Linkage projects that could lead to breakthroughs in areas such as health, the environment, engineering, technology, mathematics, the arts and social sciences.

Some key Discovery Projects include:

- \$710,000 to Associate Professor Frank Grützner (School of Molecular & Biomedical Science) for a study of evolution and function of sex chromosomes and genes in mammalian reproduction;
- \$710,000 to Professor Graeme Hugo (School of Social Sciences) to study climate change and migration in China;
- \$330,000 to Professor Peter Dowd (Executive Dean, Faculty of Engineering, Computer and Mathematical Sciences) to better understand fractures in crystalline rock masses, which are crucial to geothermal energy production;
- \$155,000 to Associate Professor Rachel

Ankeny (School of History and Politics) to explore Australians' understanding of food ethics and to further public participation in policy-making around ethical food choices.

Linkage Projects involve external partners, such as government and industry. Some key Linkage Projects include:

- \$610,000 to Dr Carl Howard (School of Mechanical Engineering) to develop novel vibro-acoustic technologies for detecting bearing and wheel defects in rail vehicles;
- \$410,000 to Professor Andy Lowe (School of Earth and Environmental Sciences) to develop a new method to assess ecosystem resilience for use in national biodiversity corridor planning;
- \$90,586 to Dr Susan Oakley (School of Social Sciences) to create better pathways into civic participation for young homeless people through sustainable accommodation and support programs.

Associate Professor Jennifer Baker (School of Population Health and Clinical Practice) has also been awarded \$105,756 under the ARC's Discovery Indigenous

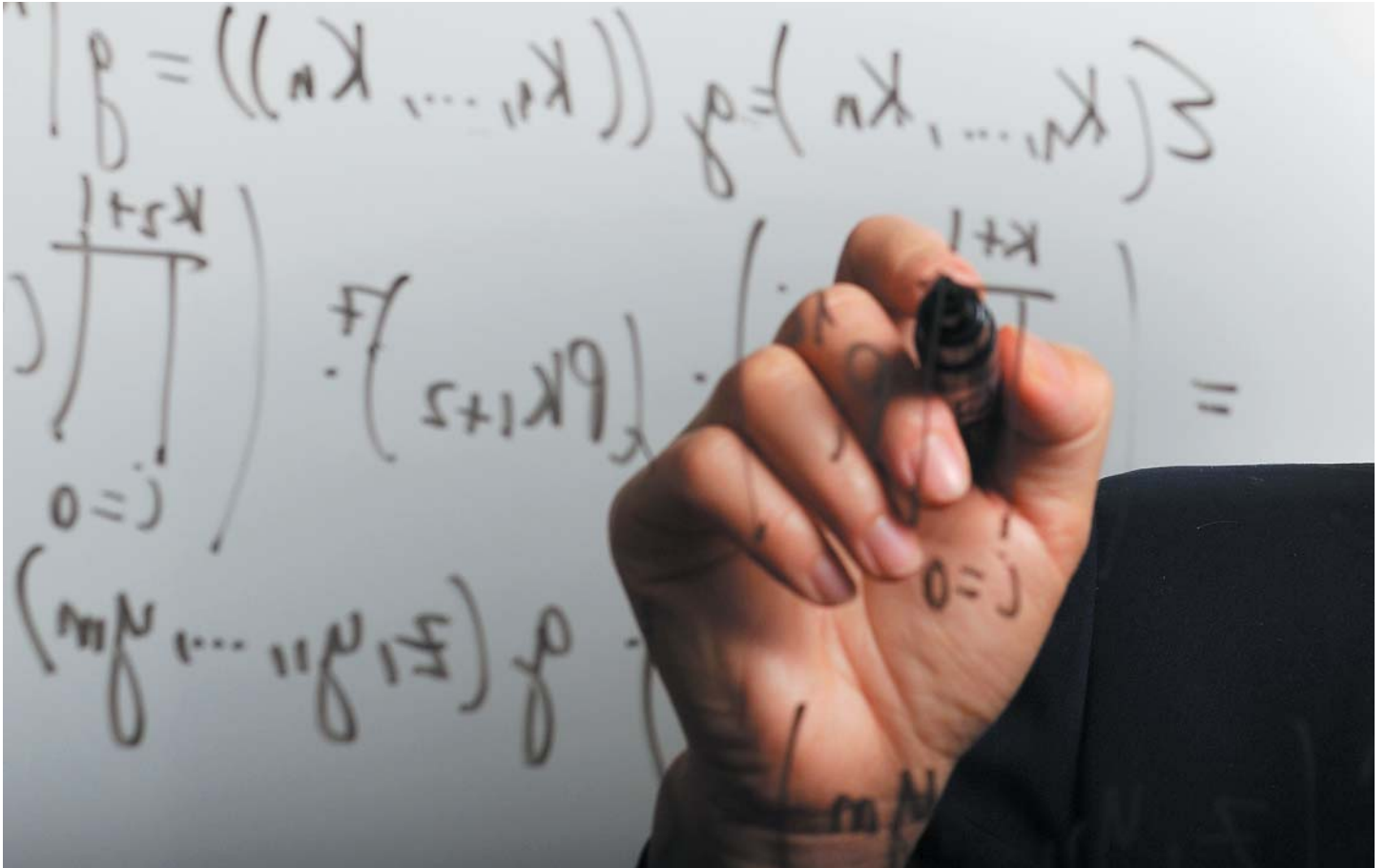
Researchers Development Fund. Her work aims to improve the way in which organisations and institutions in the South Australian town of Port Augusta can better address the social determinants of health as they affect Aboriginal people.

Meanwhile, eight new ARC Future Fellowships worth more than \$6.2 million in total have been awarded to researchers for studies at the University of Adelaide, into areas such as child health, communications, climate change, ancient DNA, fish populations, space science, particle physics and chemistry.

Six recipients of the fellowships are all current staff members, with another two being won by Adelaide graduates who will return home to Adelaide for their fellowships.

"The Future Fellowships are extremely important for attracting and retaining the best researchers," said Professor Mike Brooks.

"Giving top researchers the opportunity to return to Adelaide is an outstanding win for our State and the nation."



Funding adds up for maths

From helping control disease pandemics to improving the efficiency of the Internet and advancing complex theories relating to particle physics, mathematics at the University of Adelaide is finding the answers – and winning the funding.

“Mathematics underpins so many different areas of research,” said the Head of the School of Mathematical Sciences, Associate Professor Jim Denier. “Not only does it provide the tools required to explore the environment we live in, it also provides the language that allows us to ask new questions and open up new vistas of scientific enquiry.”

Asking new questions is what Professor Mathai Varghese will be doing with his \$375,000 Australian Research Council (ARC) grant. He will undertake research investigating the physics concept of ‘supersymmetry’ between matter and its force partner particles with mathematics.

Professor Varghese and fellow Chief Investigator Professor Peter Bouwknegt from ANU have just given two week-long lecture series on their research at Japan’s most prestigious mathematics research centres at Kyoto and Tohoku universities.

His is one of the five successful ARC Discovery projects that researchers in the School of Mathematical Sciences will lead, with a total funding of more than \$1.6 million, reflecting the School’s position as one of Australia’s leading mathematics departments.

The School’s researchers will also share in just over \$1.5 million for another Discovery project and two Linkage projects in partnership with other universities.

Developing new statistical methods to more accurately analyse and compare critical care performance in hospitals is the aim of a \$310,000 project led by Professor Patricia Solomon. These new methods will account for the uncertainty in the assessment of provider performance – ‘something of a holy grail’ in health outcomes research, she said.

Professor Nigel Bean and Dr Joshua Ross have been awarded \$255,000 to develop new mathematical tools for the adaptive management of threatened plant and animal populations and other ecosystems.

Dr Joshua Ross’s \$248,000 project will explore the spread of infectious disease with new mathematical techniques.

“Epidemics such as the foot-and-mouth disease outbreak in the UK during 2001, the global SARS epidemic of 2003, the national equine flu outbreak of 2007 and the 2009 swine flu pandemic highlight the need to make informed, decisive responses,” said Dr Ross.

Making sense mathematically of complicated Internet traffic is the aim of the fifth successful Discovery research project, led by Associate Professor Matt Roughan, with funding of \$425,000. This project should lead to improved efficiency and reliability of Internet services.

The importance of mathematics as a discipline and its benefits for both school and university students is clear, Associate Professor Denier said.

“We know that, in the case of high school students, taking extra mathematics gives students a very strong advantage at university across all science subjects,” he said.

“At university, students are able to see the utility of mathematics and statistics, from its study in the purest sense through to a wide range of application areas. Many of these areas are highlighted in the research conducted within the School and supported through this year’s round of ARC grants.”

Story by Robyn Mills

Photo by iStock

DNA uncovers endangered bird

This Australian parrot is believed to be one of the world's rarest birds.

The critically endangered species of ground parrot in Western Australia has been identified by a team of Australian researchers including ancient DNA experts at the University of Adelaide.

The team, led by Australian Wildlife Conservancy's Dr Stephen Murphy, used DNA from museum specimens up to 160 years old to reveal that populations of ground parrots in eastern and western Australia are highly distinct from each other and that the western populations should be recognised as a new species, *Pezoporus flaviventris*.

"The discovery has major conservation implications," said Dr Murphy. "The Western Ground parrot has declined rapidly in the last 20 years, there are now only about 110 birds surviving in the wild and most of these are confined to a single national park. It is now one of the world's rarest birds."

WA Department of Environment and Conservation's Dr Allan Burbidge said: "A single wildfire through the national park or an influx of introduced predators, such as cats, could rapidly push the species to extinction. There is now an urgent need to prevent further population declines and to establish insurance populations into parts of the former range."

"Our findings demonstrate that museum collections, some going back more than 150 years, continue to be relevant and can provide critical information for understanding and conserving the world's biodiversity into the future," said team member Dr Jeremy Austin, Deputy Director of the Australian Centre for Ancient DNA at the University of Adelaide.

Director of CSIRO's Australian National Wildlife Collection Dr Leo Joseph said: "Even after 200 years of study, we are still recognising new species of birds in Australia. This finding highlights the need for further research on Australia's unique, and sometimes cryptic, biodiversity."

The team's findings have been published in the international conservation research journal *Conservation Genetics*.

Below: An adult Western Ground Parrot photographed in Fitzgerald River National Park, Western Australia

Photo by Brent Barrett, WA Department of Environment and Conservation



Quality education for first mining graduates

As the University of Adelaide's first mining engineering graduates head off to start their careers in mining regions throughout Australia, the quality of their program of study has received national recognition.

Industry-sponsored Mining Education Australia (MEA), which involves the University of Adelaide, has received one of the prestigious 2010 Australian Learning and Teaching Council's (ALTC) national awards at Parliament House in Canberra.

MEA won the Award for Programs that Enhance Learning (Education Partnerships and Collaborations with Other Organisations).

MEA was developed with the support of the Minerals Council of Australia to deliver a common undergraduate program in mining engineering across Australia in response to increased demand for mining industry professionals.

It is an unincorporated joint venture between the University of Queensland, University of New South Wales and Curtin University of Technology. The University of Adelaide started its Mining Engineering undergraduate degree in 2007 and joined MEA as a provisional member in 2008.

"This was great recognition of our involvement in MEA and also the input of the Minerals Council of Australia in providing funding and support to address specific industry recruitment issues," said Professor Martin Lambert, Head of the School of Civil, Environmental and Mining Engineering.

"Congratulations to all our mining staff who have contributed to the success of MEA. It's particularly exciting with our graduates this year heading off to jobs in both the hard rock (iron ore, copper, uranium) and soft rock (coal) areas of Australia."

Also being presented with her Award for Teaching Excellence, announced earlier last month, was Associate Professor Elizabeth Koch (see story in last month's *Adelaidean*).

Story by Robyn Mills

Gut research has new home

The University of Adelaide is now home to a group of researchers who are hoping to find cures and treatments for a range of digestive diseases.



The Nerve Gut Research Laboratory, once based at the Royal Adelaide Hospital, now sits within the School of Medicine and is focused on research into reflux disease, irritable bowel syndrome, diabetes, and appetite control.

Professor Ashley Blackshaw, a National Health and Medical Research Council (NHMRC) Research Fellow, heads up the lab of approximately 20 researchers, who are working on some critical studies.

These include developing a drug to prevent reflux disease (build-up of acid in the stomach), which affects about 30% of people.

"As the title of our lab suggests, we are interested in the nervous system and how it affects the stomach," Professor Blackshaw said.

"Gastrointestinal disorders all involve interactions between the nerves and the gut and if we can change the way the stomach works it will help us to find a cure for these conditions."

Appetite regulation is another key research area. Associate Professor Amanda Page is looking at alternative treatments for controlling obesity.

"There are hormones that are released from the stomach which send signals to the brain when the stomach is full," Associate Professor Page said.

"In obese people, these signals are dimmed because the stomach is so much larger and does not have to stretch. Because they don't feel full, they eat more and it ends up in a vicious cycle."

Associate Professor Page is hoping to develop a drug that alters the stomach's nervous system and tells the brain it is full. This would be an alternative treatment to bariatric surgery, where the stomach is cut away, or gastric banding.

Irritable bowel syndrome, which affects 10% of people, is another area of the lab's focus.

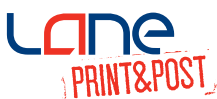
"In this condition, patients are ultra sensitive to the contents of the gut, but if we can modify the signalling pathway from the stomach to the brain we may be able to find a breakthrough," Professor Blackshaw said.

The Nerve Gut Research Laboratory celebrates its 20th birthday in 2011.

Story by Candy Gibson

Photo by iStock

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Migrants brought farming to Europe

A team of international researchers led by ancient DNA experts from the University of Adelaide has resolved the longstanding issue of the origins of the people who introduced farming to Europe some 8000 years ago.

A detailed genetic study of one of the first farming communities in Europe – from central Germany – has revealed marked similarities with populations living in the Ancient Near East (modern-day Turkey, Iraq and other countries) rather than those from Europe.

“This overturns current thinking, which accepts that the first European farming populations were constructed largely from existing populations of hunter-gatherers, who had either rapidly learned to farm or interbred with the invaders,” said the project leader, Professor Alan Cooper, Director of the Australian Centre for Ancient DNA (ACAD) at the University of Adelaide.

The results of the study have been published in the online peer-reviewed science journal *PLoS Biology*.

“We have finally resolved the question of who the first farmers in Europe were – invaders with revolutionary new ideas, rather than populations of Stone Age hunter-gatherers who already existed in the area,” said lead author Dr Wolfgang Haak, Senior Research Associate with ACAD.

“We’ve been able to apply new, high-precision ancient DNA methods to create a detailed genetic picture of this ancient farming population, and reveal that it was radically different to the nomadic populations already present in Europe.

“We have also been able to use genetic signatures to identify a potential route from the Near East and Anatolia, where farming evolved around 11,000 years ago, via south-eastern Europe and the Carpathian Basin (today’s Hungary) into Central Europe,”

Dr Haak said.

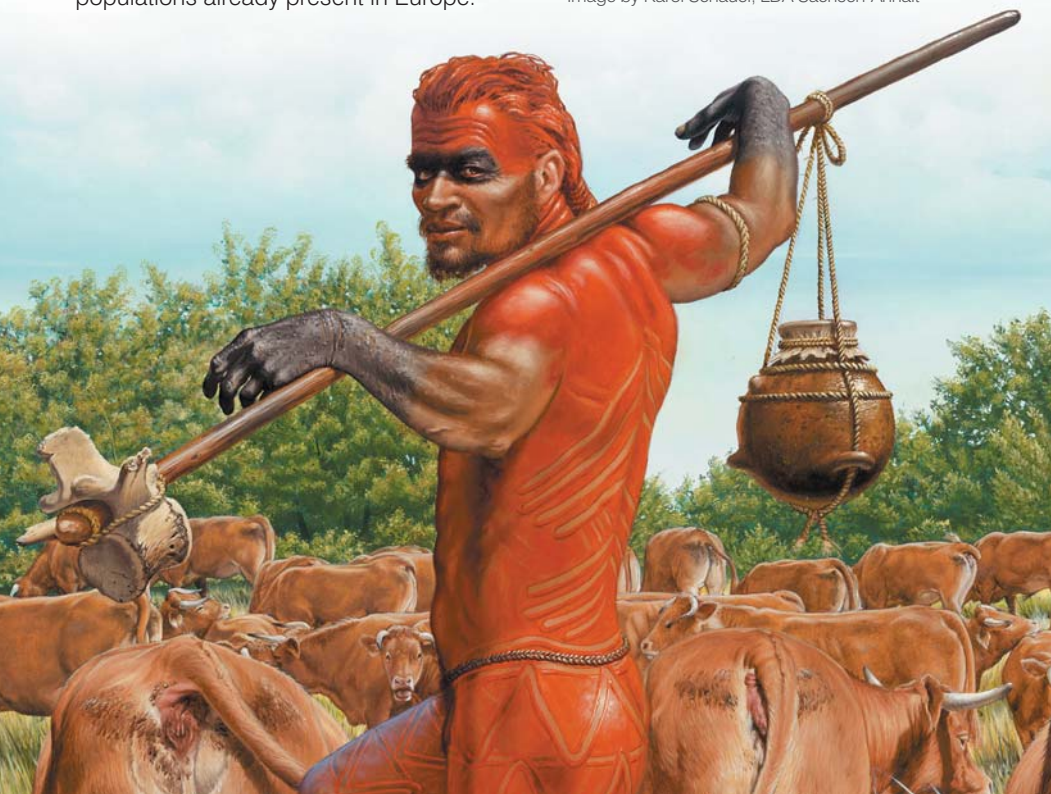
The project involved researchers from the University of Mainz and State Heritage Museum in Halle, Germany, the Russian Academy of Sciences and members of the National Geographic Society’s Genographic Project, of which Professor Cooper is a Principal Investigator and Dr Haak is a Senior Research Associate.

The ancient DNA used in this study came from a complete graveyard of Early Neolithic farmers unearthed at the town of Derenburg in Saxony-Anhalt, central Germany.

“This work was only possible due to the close collaboration of archaeologists excavating the skeletons, to ensure that no modern human DNA contaminated the remains, and nicely illustrates the potential when archaeology and genetics are combined,” said Professor Kurt Werner Alt from the collaborating Institute of Anthropology in Mainz, Germany.

Story by David Ellis

Below: An artist’s impression of a Stone Age farmer
Image by Karol Schauer, LDA Sachsen-Anhalt



News in Brief

Carols on Campus – free event

The University of Adelaide is holding its inaugural *Carols on Campus* in historic Bonython Hall this month.

In the tradition of *Carols from King’s* at Cambridge University, *Carols on Campus* will feature a full academic procession, soloists and musicians from the University’s Elder Conservatorium of Music, and the magnificent Bonython Hall organ.

This free community event will be held at 7.00pm on Tuesday 21 December in Bonython Hall, North Terrace Campus.

Members of the public are invited to bring their family and friends and join the University’s choir for a traditional program of Christmas music, readings and carols.

Digital identity explored in new book

A book recently launched by author Dr Clare Sullivan offers a new legal concept of digital identity.



Published by the University of Adelaide Press, *Digital Identity* argues that the concept of identity will become embedded in processes essential to the national economic and social order.

Under a national identity scheme, being asked to provide ‘ID’ will become as commonplace as being asked your name, it says.

Dr Sullivan is a Visiting Research Fellow in the University of Adelaide’s School of Law. She has practised law for thirty years and has published widely on the relationship between identity and changing technology. She is also a former research analyst with the Australian Institute of Criminology and a consultant to its Global Electronic and Economic Crime Unit.

Digital Identity is available for \$39.95 (paperback) or free (PDF download). For more information about the book and the University of Adelaide Press, go to: www.adelaide.edu.au/press

New CRC for mineral exploration

The University of Adelaide is an inaugural participant in a new Cooperative Research Centre aimed at addressing significant challenges to the future of the minerals industry.

The Deep Exploration Technologies Cooperative Research Centre (DET CRC), launched in Adelaide last month, will deliver research programs in more successful, cheaper, safer and more environmentally friendly ways to drill, analyse and target deep mineral deposits.

With \$112 million of cash and in-kind funding from the Australian Government and participants, the DET CRC is the world’s best-supported independent research initiative in mineral exploration.

Maths whizz-kids in Adelaide

Many of Australia's brightest mathematics and statistics students will converge on the University of Adelaide in January 2011 for a four-week intensive summer school.

Hosted by the University's School of Mathematical Sciences, the Australian Mathematical Sciences Institute Summer School in Mathematics will be held from 10 January to 4 February, with up to 100 honours and postgraduate students expected to attend.

"The mathematical atmosphere at the summer school is intense. Students benefit from the opportunity to exchange ideas with each other and the lecturers, and they enjoy the camaraderie," said Finnur Lárusson, Associate Professor in Pure Mathematics and 2011 Summer School Director.

Eight courses will be taught by outstanding lecturers – four local and four from interstate – selected by a national program committee.

"Each course has the content of a regular 12-week honours course, so these are obviously quite intensive courses," said Associate Professor Lárusson.

"In many cases, these courses would not be available at the students' home universities."

www.maths.adelaide.edu.au/amsi2011

Story by Robyn Mills

Industry recognition for computer scientist

Professor Anton van den Hengel from the University of Adelaide's School of Computer Science has won this year's prestigious South Australian Pearcey Foundation Award.

The award – in recognition of his contribution to information computer technology – is made annually to a younger person in mid-career who is "running a risk and making a difference in the ICT industry".

Professor van den Hengel, who is Director of the Australian Centre for Visual Technologies, was the lead inventor on the team that developed the Videotrace image-based modelling technology.

"Allowing unskilled computer users to create 3D models of objects around them has translated into users being able to generate content for virtual environments such as Second Life and Google Earth," said Brenda Aynsley, Chairman of the Pearcey Foundation selection committee for South Australia.

"That this globally used software was invented right here in Adelaide by Anton and his team at the University of Adelaide illustrates why Anton has been recognised through this most prestigious award."

www.acvt.com.au/research/videotrace

Story by Robyn Mills

Asian endeavour for students with PM's scholarships

Three University of Adelaide students have been awarded Federal Government scholarships to study and work in Asia.

PhD candidates Hungyen Lin and Jeff Newman and undergraduate student Anastasia Woolmer have each won a prestigious Prime Minister's Australia Asia Endeavour Award – the Asian equivalent of a Rhodes Scholar.

Hungyen Lin, 28, of Hackham West, is studying for a PhD in Electrical and Electronic Engineering. He will attend Osaka University in Japan next year to research optical imaging innovations.

Jeff Newman, 26, of Tranmere, is a PhD student in Civil and Environmental Engineering. His scholarship will enable him to attend the Harbin Institute of Technology in China to further his research on water engineering.

Anastasia Woolmer, 33, of Stepney, is studying for a Bachelor of Economics. She will attend Nagoya University in Japan next year to research that country's history of economic recession in the last 15 years.

All three will also undertake internships with Asian companies or organisations relevant to their degrees.

The University of Adelaide's Vice-Chancellor and President, Professor James McWha, said the awards provided "a unique opportunity for local students to

broaden their professional and personal horizons in an international context".

"The Australia Endeavour Awards will help our students undertake research that is not only relevant to their degree, but they will gain international work experience and build a professional network in Asia.

"It's a wonderful achievement and an opportunity to establish lifelong career collaborations. These awards also further cement the University's strong links with Asia," Professor McWha said.

The awards, introduced in 2010, provide educational and living expenses for 6-12 months of study, followed by internships of up to a year. They are valued at up to \$63,500 for postgraduates and up to \$41,500 for undergraduates. Forty awards in total are made to university students across Australia.

Three of the four awards presented to South Australian students were from the University of Adelaide.

The students received their awards from Prime Minister Julia Gillard at a ceremony in Canberra last month.

Story by Candy Gibson

Below (from left): Students Hungyen Lin, Jeff Newman and Anastasia Woolmer





Graduate's portrait comes home

A portrait of esteemed medical researcher and graduate Dr Basil Hetzel AC, painted to commemorate the University of Adelaide's 125th anniversary of its medical program, has been officially unveiled in the Queen Elizabeth Hospital.

Dr Hetzel was one of 59 of the State's best known medical personnel who were captured on canvas this year by two local artists and displayed in Bonython Hall as part of the Medicine 125 celebrations.

His portrait, by artist Avril Thomas, now hangs in the atrium of the Basil Hetzel Institute for Medical Research at the Queen Elizabeth Hospital (QEH) as testament to his lifelong work to combat iodine deficiencies worldwide.

Dr Hetzel purchased the portrait in August and has donated it back to the University of Adelaide. The QEH has been chosen as the new home for the painting – it's where Dr Hetzel achieved his initial research breakthroughs into iodine deficiencies back in the late 1960s. The QEH is also closely affiliated with the University of Adelaide from both a teaching and research perspective.

QEH staff members Professor John Beltrame and Professor Dick Ruffin, both from the University of Adelaide, were present at the unveiling, along with artist Avril Thomas.

"Dr Hetzel has been associated with the Queen Elizabeth Hospital for more than 40 years and the staff here are immensely proud of his achievements," Professor Beltrame said.

"His portrait now hangs with distinction in the building named in his honour in 2001."

Dr Hetzel said he was flattered and honoured by the portrait, which was a candidate for the 2010 Archibald Prize, one of Australia's oldest and most prestigious portrait awards.

Avril Thomas thoroughly researched Dr Hetzel's life before beginning his portrait.

"From the first sitting I was determined to convey his personality and his life's work through the painting. Hopefully I have achieved that," she said.

The 88-year-old pioneering researcher gained his undergraduate medical degree from the University of Adelaide in 1944 and completed his postgraduate degree in 1949.

After a spell in New York (as a Fulbright Scholar) and London, he returned to the

University to serve as Reader and then Michell Professor of Medicine at the QEH from 1956-1968. During this time his team started working with a team of researchers in Papua New Guinea to correct maternal iodine deficiencies, which were found to cause brain damage among newborns.

That research has been the mainstay of his life's work, leading to a global campaign in support of salt iodisation programs aimed at eliminating iodine deficiency worldwide.

Today, approximately 90 countries with significant iodine deficiency have a salt iodisation program in place, protecting millions of children around the world.

Story by Candy Gibson

Above (from left): Professor John Beltrame, Dr Basil Hetzel AC, artist Avril Thomas and Professor Dick Ruffin flank the portrait, which now hangs in the Basil Hetzel Institute for Medical Research at the Queen Elizabeth Hospital
Photo courtesy of the Queen Elizabeth Hospital

Celebrating a golden era

More than 100 University of Adelaide alumni recently commemorated the 50th anniversary of their graduation.

The Golden Jubilee saw graduates from 1960 return to the scene of their original graduation, Bonython Hall, for a commemoration ceremony followed by a luncheon at the stately Mortlock Chamber of the State Library.

115 graduates – from as far away as the US and the UK – were addressed by Vice-Chancellor Professor James McWha and Development and Alumni Director Robyn Brown.

Professor McWha paid tribute to the achievements of the class of 1960 and gave an update on the current position of the University.

“As you can see, it is a very exciting time for the University as we continue to position ourselves as a great research university,” he said. “But we would not be in this position today if not for those, such as you, who have gone before us.”

One of those who travelled the furthest to be there, Professor Brian Matthews from Oregon in the US, arguably also had the most to celebrate, having just received an honorary degree from his *alma mater* at the September graduation ceremonies.

Professor Matthews graduated with a Bachelor of Science (Honours) in 1960 and has gone on to a distinguished academic career, primarily in the US at the University of Oregon, in the field known now as structural biology.

“It is very flattering – I never expected to be recognised in that way,” he said of his honorary degree.

“I’d actually trained to be a teacher and went through the Teachers College. I also had a job lined up at Unley High, but had to tell the Principal that I couldn’t accept because I had received a fellowship to complete my PhD in structural studies.

“It went on to become my career and I’m pretty sure I made the right choice!”

Fellow 1960 graduate and philanthropist Bob Cowan gave the Golden Jubilee keynote address, reminiscing about life both on and off campus.

Mr Cowan said his family has found great satisfaction in helping young rural and regional people to go to university. Since its establishment in 1993, his family’s philanthropic trust, Cowan Grant, has helped about 700 rural and regional students in meeting university costs – for a total of more than \$1.7 million.

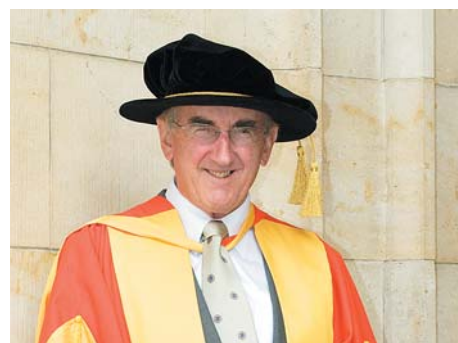
Mr Cowan graduated from the University of Adelaide with a Bachelor of Science (Forestry) before completing a Diploma in Forestry at the then Australian Forestry School in Canberra and postgraduate studies in forestry at the University of Oxford.

His 32-year career in the forest and timber industries in South Australia’s south-east included responsibility for the State’s forest operations and the commercial sawmills at Mt Gambier, Mt Burr and Nangwarry. Mr Cowan was also a United Nations consultant to the Food and Agriculture Organization in Rome, among other distinguished positions.

His family’s connection to the University of Adelaide started with his father, Bill Cowan, who was the Barr Smith Librarian from 1936 to 1964, and his mother, Marnie, who was chairwoman of the University’s Wives Club. Bob’s son Leigh graduated in Engineering in 1990.

Bill, Marnie and their three children wanted to give something back and, at the same time, help young people from the country to get the same start in life that the Cowan family had received.

“All three generations benefited from scholarships and grants to university,” Mr Cowan said. “We are country people and we are well aware of the difficulties faced



by rural families and how that can be an impediment to young people going to university.

“We’ve found that just a small amount of help financially can be so important. Not only do the students receive financial support but this also gives them an immeasurable boost of confidence. It can show the students that someone has faith in them, and this is a very powerful motivator.”

For more information go to:
www.cowangrant.org

Story by Ben Osborne and Robyn Mills

Above and below: Graduates from 1960, including Brian Matthews (top) and Bob Cowan (above)
Photos by John Hemmings





Arabian night for university supporters

It was exactly 1000 nights shorter than its namesake, but the University of Adelaide's recent *Arabian Nights*-themed thank you event proved to be a popular evening out for its supporters and benefactors.

More than 400 alumni, friends, industry partners and other supporters of the University attended the event, hosted by the Development and Alumni Office, in a suitably decorated Bonython Hall.

Other features of the event included three brightly coloured and exuberant belly dancers, and a special Middle East-themed menu.

Vice-Chancellor and President Professor James McWha told guests that their ongoing support of the University helped its drive towards being recognised globally as a great research institution.

"Our future success will depend on the partnerships it develops with industry, government and the community," he said.

"And it will be strengthened by the generosity of our friends and benefactors.

"The range of guests attending tonight's event highlights the many ways people contribute to the University.

"Each of you has made a difference.

"Whatever your contribution – time or money, a scholarship or bequest – it is an investment in the future success of the University of Adelaide, its people and the communities they serve."

Development and Alumni Director Robyn Brown said students were the biggest beneficiaries of support given to the University.

"It is only with your support that we can assist gifted and financially struggling students to help them to achieve their goals and dreams of succeeding in their field of study," Mrs Brown said.

"I know that most of you present tonight would appreciate the effort it takes to juggle study with part-time work. This is the situation that the majority of our students have to cope with so that they can obtain a hard-earned degree.

"Your assistance through scholarships and prizes means our students can focus more of their time on their study.

"Sometimes it is the difference between being able to undertake a higher education rather than it being out of reach financially for some talented young people."

Story by Ben Osborne

Above (from left): A belly dancer with University of Adelaide graduate and supporter Dr Tim Cooper, of Coopers Brewery, and Development and Alumni Director Robyn Brown

Photo by John Hemmings

Alumni

PRIVILEGES

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.



Tennis SA – World Tennis Challenge

Former world No.1 tennis champions and rivals John McEnroe and Ivan Lendl headline the World Tennis Challenge at Memorial Drive, Adelaide, from 11-13 January 2011.

Special ticket offer: University of Adelaide alumni can access discounted courtside seating at the World Tennis Challenge. You will be seated in the Australian Marquee area, which gives you the flexibility of purchasing singles session tickets with no limit on group bookings. Receive in-seat hot dinner and access to purchase drinks from a private bar while watching the best tennis in South Australia!

These tickets are normally \$85 each – however, for University of Adelaide alumni quote the code "ADLALUMNI" when booking and you will receive \$10 off each ticket purchased. Book directly through www.venutix.com.au or by calling (08) 7224 8100. Be quick – only 200 tickets available! Offer expires 31 December 2010.

For more information about the World Tennis Challenge and the full alumni privileges package, including terms and conditions, go to: www.alumni.adelaide.edu.au/privileges





Win tickets for soprano's ASO debut

Soprano Jessica Dean (pictured) will pay a special tribute to the late Dame Joan Sutherland when she makes her Adelaide Symphony Orchestra (ASO) solo debut at the Adelaide Botanic Gardens on Saturday 11 December.

Jessica, 28, is a First Class Honours graduate from the Elder Conservatorium of Music and a rising star of Australian opera.

The talented singer will perform a selection of operatic arias by Mozart, Humperdinck and Dvořák, as well as performing a special song loved and sung by *la stupenda*.

Adelaide-born conductor Luke Dollman will lead the ASO in masterworks by Ralph Vaughan Williams, Hector Berlioz, George Handel and British composer Malcolm Arnold.

Tickets for the alfresco concert are \$35 adults and \$30 for students and concession. Call BASS 131 256 or go to www.bass.net.au

Courtesy of the ASO, *Adelaidean* has one double-pass for ASO *Alfresco* (valued at \$70) to give away to a lucky reader. To win, be the first to call (08) 8303 7511 and leave your name and contact details, including a phone number.



Soprano heads west

Another emerging soprano from the Elder Conservatorium of Music, Bella Jedrejczak (pictured), is in Perth this month receiving specialised tuition from opera singer Patricia Price and director Chris Edmund.

Bella is completing a Bachelor of Music (Honours) degree, specialising in classical voice with Guila Tiver, and has performed in Europe in a Co-Opera tour of *The Magic Flute*.

Bella will receive one-on-one lessons from Price, an acclaimed opera singer who has enjoyed a distinguished international career, and Edmund, who has taught many of Australia's leading actors, including Hugh Jackman.

Her professional development tour in Western Australia has been supported by a Helpmann Academy grant.

Guitarist wins music scholarship

Classical Guitar student Jody Fisher will spend three months in Milan from next April, working under renowned Uruguayan guitarist Eduardo Fernandez, after winning the \$12,500 Dame Ruby Litchfield Scholarship for 2011.

The 23-year-old, who is completing her Masters in Classical Guitar at the University of Adelaide's Elder Conservatorium of Music, will undertake three months' private tuition with Eduardo, recognised as one of the world's leading guitarists.

Since picking up the classical guitar at the age of seven, Jody has established herself as one of Australia's leading young guitarists.

She graduated with Honours in Musicology and Performance (First Class) from the Elder Conservatorium in 2009 before beginning her Masters later that year.

"This scholarship will give me the opportunity to study with one of the world's best guitarists," Jody said.

"Eduardo is also an outstanding teacher and working with him will enhance my development as an artist.

"I'm very grateful for the support of both the Conservatorium staff, who have assisted me throughout my degree, and the Carclew Youth Arts Board (who administer the scholarship) because without this award I could not travel to Europe to study."

Her supervisor of five years, Oliver Fartach-Naini, said Jody was "a highly motivated student, with exceptional abilities and a rare degree of maturity for her age".

"It has been a great pleasure to guide her through an impressively steep learning curve right throughout her Bachelor, Honours and now her Masters studies," Oliver said.

He said Eduardo's immense knowledge of the guitar repertoire, the music of Johann Sebastian Bach and his famed technical mastery made him the perfect mentor for Jody at this point in her performance career.

Jody has performed solo recitals in venues such as Wienklang (Berlin), Eschen Convention Centre (Liechtenstein), the Adelaide Festival Centre (as part of the Adelaide International Guitar Festival), Elder Hall and SANTOS stadium.

Last month she featured in the Adelaide International Guitar Festival's *Guitarissimo*.

She has also been part of the Adelaide Festival Centre's *Sunday Spectrum* and the Elder Hall's Lunch Hour, Evening Concert and Emerging Artist Spring Concert Series.

As an undergraduate student, Jody was the first guitarist from the Elder Conservatorium of Music to perform as a soloist with the University's orchestra, playing on two occasions, in performances of Rodrigo's *Concierto de Aranjuez* and *Fantasia para un Gentilhombre*.



Story by Candy Gibson

Left: Classical guitarist Jody Fisher



Research Tuesdays

SHARING GREAT RESEARCH WITH THE COMMUNITY



No Child in Vain

How Preventive Pathology is saving our kids

The death of a child is always a tragedy. But although the emotional scars it causes may never fully disappear, some solace can be found in the knowledge that lessons learned from the loss may save the lives of others.

For this reason, Professor Roger Byard of the University of Adelaide has been researching forensic pathology cases for two decades, focusing on those involving children. Referred to as "Preventive Pathology", his work has led to many safety hazards being remedied, including unsafe cot designs.

In this fascinating presentation he will reveal how this research is conducted, what the recent data reveals and where the greatest possibilities appear to lie for further improvements in child safety.

WHEN: 5.30-6.30pm Tuesday 14 December

WHERE: Lecture Theatre 102, Napier Building, North Terrace Campus

ADMISSION FREE, BOOKINGS ESSENTIAL

Register online:

www.adelaide.edu.au/researchtuesdays
or call: 08 8303 3692

Free public forum: Food for Health – separating myths from facts

Leading nutrition researchers from around the globe will discuss the confusion surrounding messages on nutrition at a public forum organised by the new FOODplus Research Centre.

This is your opportunity to get some take home messages about healthy eating and have your own nutrition-related questions answered.

www.adelaide.edu.au/foodplus

When: 5.30pm Wednesday 8 December

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

Cost: Free – all welcome

Carols on Campus

Join us for the University of Adelaide's inaugural *Carols on Campus* in historic Bonython Hall.

In the tradition of *Carols from King's* at Cambridge University, *Carols on Campus* will feature a full academic procession, soloists and musicians from the University's Elder Conservatorium of Music, and the magnificent Bonython Hall organ.

Bring your family and friends and join the University's choir for a traditional program of Christmas music, readings and carols.

A very special FREE community event not to be missed.

When: 7.00pm Tuesday 21 December

Where: Bonython Hall, North Terrace Campus, University of Adelaide

Cost: Free – all welcome



DECEMBER INFO NIGHT
4PM-7PM ON 22 DECEMBER 2010

WHERE CAN I DISCOVER MORE?

At this time of year you may still be considering your options.
If you have questions, we're here to help you find the answers.

Our December Info Night will be held at Bonython Hall on our North Terrace campus.

For information please contact the Student Centre on **(08) 8303 7335**
or visit: www.whatsyourpreference.com

Adelaidean READER SURVEY



We need your help to make *Adelaidean* even better. By answering our questionnaire you can help us to refine, update and improve the magazine to better meet your needs. You may choose to remain anonymous or provide your details to go in the prize draw.

Please fill in this short survey or ONLINE at: www.adelaide.edu.au/adelaidean

Survey replies must be received by **31 December 2010** to be eligible for the prize draw.

The winner will be notified by mail.

For full terms and conditions please visit: www.adelaide.edu.au/adelaidean

WIN

Every respondent goes in the draw to win either an Apple iPad, \$500 book voucher or \$500 travel voucher.



OR



OR



Are you a good writer?

Students, staff and alumni interested in contributing stories about the University to *Adelaidean*, please drop us a line at adelaidean@adelaide.edu.au

Follow the University of Adelaide on Facebook and Twitter:



facebook.com/uniofadelaide
twitter.com/uniofadelaide

1. Of the following options, how frequently would you prefer to receive *Adelaidean*?

- Monthly (March – December)
- Quarterly
- Annually

2. How do you receive *Adelaidean*?

- In the mail
- Online
- Pick it up on campus
- Pick it up at café
- Pick it up at library
- Other, please specify

3. Please rate *Adelaidean* on the amount of content

- Not enough content
- The right amount of content
- Too much content

4. Which of the following best describes how you read *Adelaidean*?

- I skim through the headlines only
- I skim through and usually read a couple of the stories
- I tend to read most or all of the stories
- Other, please specify

5. How would you prefer to read *Adelaidean*?

- Online (on the University of Adelaide's website)
- Printed version

6. What kind of content would you like to see in *Adelaidean*? (You may select more than one)

- Vice-Chancellor's column
- Research
- Teaching and Learning
- Philanthropy
- Information about launches, events, new program initiatives etc
- Higher education policy and departmental directions
- Staff/student achievements
- Articles on current issues
- Guest feature writers
- Campus infrastructure
- New books by University staff
- Other, please specify

7. What other topics would you like to see in *Adelaidean*?

8. What do you like most about *Adelaidean*?

9 What do you like least about *Adelaidean*?

Tell us about yourself

Are you?

- Male
- Female

What age group are you in?

- Under 18
- 19-29
- 30-39
- 40-49
- 50-59
- 60 and over

Are you?

- Student
- Staff
- Alumni
- General public

What is your occupation?

Where do you live?

- Australia Postcode _____
- Overseas

Please indicate what best describes your employment status?

- Retired
- Working
- Studying
- Other – please specify _____

Do you have any dependents? (You may tick more than one box)

- Yes, aged under 10 years
- Yes, 11-18 years
- Yes, over 18 years
- No

How often do you visit the University campuses?

- Every week
- Once a month
- Occasionally
- Never

How do you stay connected with the University? (You may select more than one)

- Adelaide onLION
- Facebook
- Twitter
- Flickr
- I subscribe to the University's RSS newsfeed
- I read/receive *Lumen*
- Not at all

You may choose to remain anonymous or provide your details below to go in the prize draw

Name _____

Address _____

Phone _____

Email _____

Thank you for your time. Please return to -

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