A colony of transgenic mice from Boston hold the key to potential stem cell therapy for the terminal childhood disease muscular dystrophy.

The Department of Anatomy and Human Biology’s Professor Miranda Grounds has been working on muscle regeneration, with particular application to muscular dystrophy (MD), for nearly 30 years.

Her innovative and distinguished research has attracted international funding as she and her group push towards the answer to the devastating muscle degeneration that affects one in every 3,500 boys.

Her latest collaboration, and one that will continue for at least three years, is with renowned American research scientist Dr Nadia Rosenthal, who was recently appointed head of the mouse biology program at the European Molecular Biology Laboratory just outside Rome.

The pair have won grants worth more than $1 million from the Muscular Dystrophy Association of America for research relating to stem cells.

Dr Rosenthal is at UWA this week, collaborating with Professor Grounds and also Dr Marie Bogoyevitch in the Department of Biochemistry. She is a guest of the Institute of Advanced Studies and is their inaugural Professor at Large.

She will present the 2001 Ian Constable Lecture at 8pm next Wednesday September 19 in Winthrop Hall: How to Build a Better Muscle.

Building better muscles is at the core of Professor Grounds’ work in muscular dystrophy. For several years, she and her group and collaborators have been working on myoblast transfer therapy (MTT) which aims to replace the missing gene product, dystrophin, in the muscle cells of boys suffering from MD.

The most recent development has been the use of stem cells, which, as Professor Grounds says, “have a fantastic capacity to keep on dividing, have a plasticity that allows them to multiply in different parts of the body (for example, stem cells from bone marrow can adapt to become muscle cells) and can probably be delivered through the blood system.”

The problem is that experiments with stem cell therapy for muscle to date show extremely low efficiency and rare success.

But Professor Grounds knows it can work.

“The question is how can we increase the efficiency of the stem cells, what is the signal that will really get them going …”

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Regional Role

The wonders of the wildflower season are about to begin, reminding us of the stunning natural environment which is Western Australia and its diverse regions.

Indeed, it is the distinctive qualities of each region which underpins the character of Australia itself. We are said to be the most urbanised nation in the world after Belgium. But it is from the bush (and the beach) that comes our mythologies of identity and distinctiveness. The regions nourish our souls, define our presence on a vast landscape, and bound our lives. Regions are the living reality of being an Australian, an especially powerful truism for all of us who live in Western Australia.

Regions are currently very much on the national agenda – partly in terms of the great states like WA and its relationship to the nation in the Federal centenary year, partly as regards the remote and scattered communities who make up the rural regions of each state.

For just as globalisation is raising key questions of autonomy and viability for nations themselves, so regional communities are facing enormous challenges as economies and services work in a centralising process of efficiencies which often undercuts the very fabric of remote societies.

Regional voters and pressure-groups have made their voices heard in recent state elections and are likely to be critical in the forthcoming federal election. The “alienation of the bush” is the political pundits’ new mantra.

Governments and social planners have advanced regions up the priority list. In so doing, they have identified education as a critical force in the vitality or revitalisation of regional communities. Initially, the focus was on education – and especially school education – as a key social service in the regions. More recently, a significant emphasis has been placed on the role of higher education in regional and remote communities.

Universities have long been regarded as a key ‘social service’ in the regions. An aspiration of every state in the new Federation of 1901 was to have at least one university campus, and soon the demand grew for campuses outside the metropolitan areas. This trend became even more marked after the 1989 White Paper which created the basis for the current ‘unified national system’ of 38 universities, at least a third of which would claim to be ‘regional’ in focus and mission.

The role of such institutions has hitherto focussed on education provision, the convenience of such education in the region – so acting as a key agent in holding a local community together in a region – and as an economic stimulant in its provision of employment and as a major purchaser of services and supplies. Universities bring not just skills but resources, not least in Federal funding.

A critical new set of roles has been identified for universities as agents of new knowledge-based economies and knowledge societies. Universities, or their regional campuses, have a significant role in enhancing school retention rates as the aspiration for education and skills is embedded in non-metropolitan communities. More still, a university presence opens major opportunities for regional research, technology transfer, and the introduction of ‘new economy’ possibilities.

I have become especially aware of these key new values which a university can bring to a region through our fascinating work in establishing a UWA presence in Albany in partnership with that regional community – of the new city of Albany and the Great Southern. Our Albany programme of activities is now three years old and encompasses not only undergraduate and postgraduate offerings, but a research outreach and a partnership with local industry, both traditional and new. In early 2002 we shall be opening our campus facility in the Old Penny Post building on the foreshore - a real symbol, with its round tower referencing back to our famous Winthrop Hall tower, of UWA excellence in service of the State.

I also recently attended a Commonwealth ‘Think Tank’ on invitation of the Deputy Prime Minister and Minister for Regional Services (John Anderson) and the Minister for Education (David Kemp). The object of the meeting was consultation between government and major regional university providers in developing regional strategies in the Commonwealth.

The overriding lesson of the day was the cumulative story being told from around Australia of the absolutely critical role which universities are playing in skillling and knowledge transformation in the regions as our country begins to take up the challenges and opportunities of an international shift to intellectual capital as the great resource for modern societies of the future.

Here in WA, where all our universities are city-based, we have the special challenge of finding the best models and practices to serve the regions in either regional campuses or centres through educational and research delivery. The Albany experience has given us a new understanding of the challenge, plus new capacity in forms of flexible delivery.

This last week the Commonwealth Government announced new funded growth places for 2002 – which included 20 (in pipeline) for Albany, and 20 for a new consortium of WA universities to deliver in Geraldton.

Based on the excellence and strength of our Crawley Campus, we clearly have an opportunity to develop our critical role as the “flagship university” of WA.

Professor Deryck Schreuder
Vice-Chancellor and President
vc@acs.uwa.edu.au

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VCarious

thoughts ...

Our

Regional Role
More people die of starvation than disease. Could genetically-modified crops be the answer?

One of Britain’s leading plant scientists, the University of Oxford’s Professor Chris Leaver, puts the case for genetically modified (GM) food simply and elegantly.

“During the last century the world population tripled to six billion. The increase in food production required to sustain this dramatic increase was broadly met by the skills of plant breeders and farmers, coupled with mechanisation and technological innovation by the agrochemical industry.”

“However 800 million people still do not have sufficient food to meet their needs and every day more than 40,000 people die of starvation.”

“In the next 50 years the earth’s population is likely to grow to nine billion and the challenge is to improve food security and feed an additional three billion people. To meet this demand we must double-to-triple the sustainable production of food on, essentially, the same area of land in the face of decreasing water supplies and with respect to the environment.

“Genetic engineering, based on the revolution in our understanding of how all organisms function at the molecular, biochemical and physiological levels will allow us to identify genes that can be used to improve plants, so as to increase yield, to grow under adverse environmental conditions, use less water, and be more disease resistant.

“GM crops are not the magic bullet that will feed the world nor eliminate poverty because these problems are socio-political. But it is my belief that the application of plant biotechnology together with plant breeding and improved agricultural practice may provide solutions to some of the challenges of feeding the people of the world,” he said

“As with many new technologies, people are keen to embrace many of the benefits but concerned about the potential risks. The manner of introduction of these new technologies has led to widespread loss of community confidence, which has been exploited by non-representative groups and activists for their own political ends.”

“If we are to satisfy the environmental concerns associated with modern high input agriculture and the threat of global warming, and still feed the increasing world population in a sustainable and nutritious manner, we must assume responsibility for fully evaluating this technology for future generations.”

“Unfortunately a range of multinational activists groups have mounted an anti-GM campaign in the developed world aimed at denying the developing world, who have the greatest need, the opportunity to evaluate this new technology — it smacks of neo-colonialism!

“Doing nothing is not an option.”

Professor Leaver is a Raine Distinguished Visiting Professor, hosted by the Plant Molecular Biology Group in the Department of Biochemistry this month. His Raine Foundation Lecture next week, *Genetically Modified Plants: Food for Thought?* is part of the Institute of Advanced Studies’ Genomics Society and Human Health program. It is at 7.30pm in the Social Science Lecture Theatre on Tuesday, September 18.

He is head of one of the leading Plant Science Departments in the UK and is in Perth to establish a long term collaboration with the Department of Biochemistry which he says has one of the strongest plant mitochondrial research groups in the world. Professor Leaver and the Head of the Biochemistry Department, Professor David Day, have been pioneers in the study of mitochondrial genome organisation, expression and function in plants and have been working in this field for 30 years.

continued on page 4
Three young Aboriginal students from UWA, all preparing for careers in which they can help others, have recently won national scholarships.

Kim Isaacs and Jolleen Hicks were awarded Centenary Scholarships by the Governor, Lt-Gen John Sanderson at Government House last month. Just 100 of the scholarships were awarded Australia-wide to students whose studies would benefit the community.

Eight of the 100 scholarships, which are from the Foundation for Young Australians, went to students from WA. Kim Isaacs is studying medicine after completing a commerce degree and Jolleen, who was one of the recipients of this year’s Vice Chancellor’s awards for first year students, is studying law.

Melissa May, a student in the School of Social Work and Social Policy, won the Indigenous Women’s scholarship from the Australian Foundation of University Women. The Foundation awards two scholarships each year, one for Indigenous students, one for non-Indigenous students.

Melissa is a mother of two and hopes that, as a social worker, she will be able to help young mothers in need.

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... food for thought

“The enthusiasm and energy of the postgraduate and postdoctoral research workers I have met, together with young group leaders like Drs Harvey Millar and Jim Whelan, is extremely encouraging and I look forward to a continuing collaboration with my own research group in Oxford,” he said.

“We are now realising that mitochondria are not only ‘the powerhouses of the cell’ but play a pivotal role in many facets of plant life, especially the way in which they respond to their environment,” he said.

“We hope to increase our understanding of the key role of mitochondrial function in plant growth and development and thus identify targets for genetic modification which can be used in crop improvement programs”

continued from page 1

Childhood disease therapy

stem cells and regeneration of cardiac muscle. Before taking up her position in Europe, Dr Rosenthal headed a research laboratory in the Cardiovascular Research Centre in Massachusetts (where the mice were bred). She co-authored the definitive book on heart development with Australian scientist Richard P Harvey.

Professor Grounds said: “Terri-ann White at UWA’s Institute for Advanced Studies is doing a fantastic job.

“It’s important that visitors like Nadia Rosenthal are made to feel welcome and that many people have the opportunity to interact with them and that their visits are hassle-free. Visits such as this are bigger than just a departmental responsibility. The IAS does it so well.”

University will miss Nyoongar elder

It is with sadness that the Centre for Aboriginal Programs marks the passing of senior Nyoongar elder, Judy Jackson.

Judy, also known as Muriel Thorley, provided an invaluable service to the University over the past few years, presenting the Nyoongar welcome to country at numerous events on campus.

Her most recent welcomes were delivered at the launch of the University’s Workforce Diversity Policy and at Open Day for the Guild.

Judy worked tirelessly for her family, the Nyoongar people and the wider Aboriginal community. She died on August 10 and a memorial service was held in St Mary’s Cathedral. Her presence in the community and at future special events on campus will be sadly missed.
The new Head of the Chemistry Department could be seen as the face of UWA’s academic restructuring.

Professor Sue Berners-Price, the University’s first Professor of Biological Chemistry, is an advocate of interdisciplinary academic research and has been practising it for her entire career. The imminent restructure will take the University down a more cross-disciplinary path.

Professor Berners-Price, born and educated in London, has come to UWA from 11 years at Queensland’s Griffith University, an institution she chose specifically for its innovative approach to interdisciplinary teaching and research.

“And this is why I was interested in this position, although I must say I wasn’t looking forward to taking on the headship of the department from day one.

“It has been really hard work but the Chemistry Department staff have been wonderfully supportive and I have been able to re-establish my research in my first few months here,” she said.

Professor Berners-Price said she was attracted to UWA by the planned restructuring and the proposed new chemistry building, which will eventually also house the existing Department of Biochemistry and the Centre for Crystallography, encouraging easy flow between the departments.

“I see my appointment here as very strategic,” she said.

Professor Berners-Price has brought her bioinorganic chemistry research group with her: two PhD students and a postdoctoral fellow. “Most people think that biological chemistry must be organic as it’s relevant to living systems. But my area of research is inorganic. It’s not just carbon-based chemistry. There are 30 essential elements and we are working on designing drugs based on metals.

“Gold has already been used for treating arthritis and platinum for cancer. But the challenge is redesigning these metal-based drugs to avoid the side effects that they have previously brought with them,” she said.

When Professor Berners-Price studied chemistry at university in the UK, there were only 17 women among the class of 100 students.

“The ratio of undergraduates is much better now, but still there are very few women who stay on as academics in chemistry.” She is one of only two female professors of chemistry in Australia.

Professor Berners-Price hopes that her position will encourage more women to consider academia as a career.
Part of the Hippocratic Oath commits medical practitioners to pass on their skills to the next generation.

But doctors in teaching hospitals are run off their feet, finding it hard to balance clinical demands with teaching and supervising young medical graduates.

So Associate Professor Fiona Lake and her colleagues in the Faculty of Medicine and Dentistry’s Education Centre have come up with a course to help their clinical colleagues to effectively include teaching in their busy daily programs. It’s called Teaching on the Run.

Professor Lake, who is Associate Dean (Teaching and Learning) of the Faculty, said the package they had put together was inspired by a visit from Rodney Peyton, from the Royal College of Surgeons, who ran a course on teaching teachers.

“He was the catalyst. He got us all thinking about it. Then Antonia Bagshaw, the head of postgraduate education at Sir Charles Gairdner Hospital, approached us and we worked on a program aimed at helping clinicians to teach junior medical staff,” Professor Lake said.

Teaching on the Run was introduced about 18 months ago and the feedback has been outstanding. It is currently in action at Fremantle and Royal Perth hospitals. And it is in demand at teaching hospitals around the country.

The Federal Government’s Department of Health and Aged Care has funded the Education Centre to develop and conduct a two-year national Teaching on the Run program.

The $283,000 grant will enable the group to train up facilitators for the three-module program, taking it first to Tasmania and rural areas of WA.

The modules are general bedside teaching, teaching clinical and practical skills, and assessment and appraisal (of junior medical staff by senior clinicians).

“It is a very interactive program, which involves the clinicians doing a teaching presentation which is critiqued by their peers.

“We want to introduce people to new ideas and to build up their confidence in teaching. Although it is in our charter, doctors are not taught how to teach. We think this package will enable them to see how to utilise their experience and pass it on,” Professor Lake said.

Her group, senior lecturer Michele Teague and clinicians Dr Gerard Ryan and Dr Jeff Hamdorf (also a senior lecturer in the Department of Surgery), has collaborated with the Prevocational Training and Accreditation Committee (a subcommittee of the Medical Board) to utilise the funding and get Teaching on the Run on the road.

A novel method of training clinicians in the art of teaching is to demonstrate activities from changing a baby’s nappy to abseiling, then get the participants to do the activity, then demonstrate it themselves.

“It helps their teaching techniques if they have to learn, then demonstrate something with which they’re not familiar. It can help them to see their own skills and experience in a new light,” Professor Lake said.

“Doctors still have to teach on the run, but now they have a structure to make that teaching effective.”
A new seminar room has revamped teaching and research presentations in the Emergency Medicine Unit.

The renovated room, formerly two small rooms in the former nurses’ quarters at QEII, has been equipped with the help of Laerdal Pty Ltd, a medical product company, and named after the company, which donated more than $13,000 for audio visual equipment.

The Laerdal Emergency Medicine seminar room also used $7,000 from the EMERG Trust (Emergency Medicine Education and Research Grants Trust).

Head of the Emergency Medicine Unit, Professor George Jelinek, thanked the University and the hospital for their contributions, saying that sometimes, the importance of non-core activities, like creating a seminar room, were underestimated.

“Previously we were operating out of a shoebox in M block, having our meetings sitting on the secretary’s table. We appreciate the space we have now in R block and this new facility will assist us in our aim to have a seamless integration of clinical, teaching and research activities,” he said.
For such a decorated young architect, Martin Neilan is plainly modest.

He is UWA’s only Hackett scholar for 2001, winning the University’s most prestigious postgraduate study award to do his Masters (and possibly a PhD) at London’s famous Architectural Association (AA) Graduate School.

“I didn’t intend going on to postgraduate work just now. I was going to get out and get some real experience,” Martin said.

“But on the day applications for the Hackett closed, (lecturer) Simon Anderson said I had a good chance of winning a scholarship. I told him I didn’t think so but he pushed me into applying … and he was right.”

The Hackett Scholarship is the icing on the cake of which Martin has had a good many slices. He has won 16 undergraduate awards, 13 from within the Architecture School and three commercial awards, making him the most awarded undergraduate to study in the School.

The AA is the oldest architectural school in Britain and one of the best in the world. Several of the academics in the School of Architecture and Fine Arts have studied there.

Martin said he enjoyed pure design more than any other aspect of architecture. Before he leaves for London later this month, he is working with architectural firm Cox Howlett + Bailey Woodland (which was responsible for the design of the Motorola precinct on the west side of the campus).

“Working here has shown me how much I still have to learn. Only after studying at AA and more experience in the workplace will I be able to decide in what area of architecture I’d like to eventually specialise,” he said.
Hundreds of talented high school science students have learnt from a special UWA program that acquiring knowledge is “one of the most genuinely fun things a person can do.”

Dr Peter Simpson, honorary fellow in the Department of Chemistry and co-ordinator of the Schools WA Chemistry Olympiad Program, chose these words to describe the program rather than enumerating the international successes it has had.

Anthony Phillips is one of the success stories of the Schools WA Chemistry Olympiad Program. The winner of the Beazley Medal last year for the highest TEE score in the state, Anthony, aged 16, decided not to go straight to university but to pursue his interests in Maths, Physics and Chemistry Olympiads.

The international competitions, which began in Eastern Europe in the 1960s are for students under the age of 21 who are not enrolled at a university. Australia does not allow students to compete in more than one Olympiad each year, so although Anthony was also part of both the Maths and Physics national squads, he chose Chemistry.

It was obviously the right choice. He won a gold medal (for the top ten per cent of students competing in the Olympiad) and was placed fifth in the world, the highest rank ever achieved by Australia since it started competing in the Chemistry Olympiad 15 years ago.

But the program is not only about world beaters.

“Olympiads are about a lot more than the specific discipline in which you’re working,’ Anthony said. ‘They provide an unparalleled opportunity to learn to think.”

Dr Simpson agreed. “In the schools program, I use chemistry as a vehicle to get people to think and extend themselves. I am not interested simply in making chemists, but seeing young people develop their potential,” he said.

The program, which began at UWA in 1992, and has been generously sponsored by Hamersley Iron since 1997, is now winding down. Sponsorship is coming to an end and Dr Simpson will guide his last group of Year 12 students towards an International Chemistry Olympiad next year.

He hopes the program will attract further corporate sponsorship so it can keep going. Sponsorship would also help the mathematics Olympiad program, which, compared to the chemistry program, is in its infancy.

Senior lecturer in the Department of Mathematics and Statistics, Dr Luchezar Stoyanov, has been running an irregular mathematics seminar for talented high school students for about two years.

For those two years, he has been young Peter McNamara’s mentor. Peter, another Hale School student, recently won his second gold medal at the international Mathematics Olympiad in Washington, US.

“Peter is exceptionally talented but he needed good solid training for the Olympiad and most of the credit for that goes to the Olympiad people in Canberra,” Dr Stoyanov said.

The department’s high school maths seminars are not regular and, unless there is some sponsorship to enable Dr Stoyanov to employ some postgraduate students to help with the work, they are not likely to develop into the sort of sponsored programs run by Chemistry.

Dr Stoyanov, whose wife Dr Elena Stoyanova is the director of WA’s Mathematics Olympiad Committee, said the department offered the UWA Academy for Young Mathematicians, but “Olympians” like Peter McNamara were in a different league and needed more sophisticated training.
Is there more to landscape than the view?

Fine arts lecturer Paul Trinidad (pictured) has recently completed a residency at the Kings Perth Hotel, where ideas of painting landscapes led to deeper thoughts about society and the environment.

He has put together some of his thoughts, with his pictures, “to invite contemplation.”

“The work I have put together during my residency at the Kings does not strive to represent landscape in a traditional sense. I have been examining patterns and signs looking for something deeper. My work aims to challenge known visual syntax in an attempt to stimulate the viewer into an untypical contemplation of our environment. Sure landscape is landscape, you can see it, you can photograph it, but what if there is something more?

“At the risk of generalising, a lot of people are inclined toward bedtime stories or comfortable myths. They want to find sustenance for the soul in blissful ignorance, merry dramas (Neighbours), and ‘poor’ confused kids who drive Porsches. Forget about making an issue about the health of our country.

“Unfortunately, though, some of the land in Western Australia is in trouble and many minds are engaged in the struggle to understand the implications of problems such as rising salinity, eutrophication and cultural changes that bear pressure on isolated communities.

Sadly, the prognosis does not exactly fit the template for myth construction and no one wants dirge in the seven-to-nine thirty time slot.

“This situation however, does not impede the flow of ideas or ability to attempt articulation in the form of drawings, prints and paintings. Francisco de Goya’s best works depict the most brutal and horrendous of human tragedies and fantasies imaginable and at the same time exist as some of the best masterpieces of art ever produced.”

Much Ado about an atlas

Shakespeare’s heroines and a snapshot of Australia in the 1880s may be worlds apart but they are also the two latest books to come out of the English Department. Two of their successful PhDs have recently had their theses published and the Department hosted a launch for the first-time authors.

Dr Joanna Thompson’s thesis on the character of Britomart in Edmund Spenser’s The Faerie Queene compares Britomart with Shakespeare’s comic and romantic heroines. Her book suggests that the similarities among the characters prove a literary link between Spenser and Shakespeare.

“I think that Spenser’s portrayal of a strong dynamic and emotional character influenced Shakespeare’s portrayal of his women, such as Rosalind in Much Ado About Nothing, Portia in The Merchant of Venice and Viola in Twelfth Night,” said Dr Thompson.

Her book is published by The Edwin Mellen Press in New York.

Dr Hughes-d’Aeth’s book, Paper Nation, published by Melbourne University Press, is the fascinating story of the making of the Picturesque Atlas of Australasia during the 1880s. It provides a window through which to see and understand late 19th century Australian culture.

The Atlas was created to produce a monumental illustrated history of the Australasian colonies and sold a remarkable 50,000 copies.

Dr Thompson works in the Publications Unit and Dr Hughes-d’Aeth is tutoring in the Department of English. Both graduates thanked the Department for their support and guidance during their research and final conversion to published works, with special tribute to their supervisors, Professor Bob White and Dr Judith Johnston.
Fifty years ago, a professor of English risked his reputation by buying a dozen oil paintings from a new young Australian artist called Sidney Nolan.

Professor Allan Edwards was publicly and privately criticised for “wasting the University’s funds”. He was told he “should have his head examined” and was even accused of being a Communist.

A colleague in science said at the time: “I could understand buying one, but a dozen, it’s lunacy!”

When the paintings went on public display, a “storm of abuse filled the columns of the Daily News and The West Australian.”

These quotes from Professor Edward’s oral history of his time at UWA, include his thought: “So that was a bit depressing.”

Little did he, his colleagues or his many detractors have any idea that those paintings would form the basis of one of the world’s most impressive collections of Sidney Nolan’s work.

The Lawrence Wilson Art Gallery recently had the Nolans, along with other paintings, valued for insurance purposes.

The paintings that were bought for an average of a little over 40 pounds each (500 pounds for the lot) are now valued at close to $1 million each, making them the most valuable pieces in the University’s art collection.

Allan Edwards knew before he died in 1995 that he had made the right decision, but it was a hard one to live with in 1951. He said the Nolans were offered to University staff to display in their rooms. Few staff, including the Vice-Chancellor, took up the offer. So he hung one (A Perish, a painting of a lonely traveller lying on the ground with wildflowers in front of him and a great wasteland behind him) in the students’ coffee room.

There were “protests in the student newspaper about ‘that brown thing’ which made them (so) ill, they couldn’t drink their coffee.

“Interesting in view of the current adoration of all things Nolan. Now he can do no wrong. In those days, nothing about his work seemed right. It was a lonely time.”

But as Gallery education officer, Dr Stephanie Green says, Allan Edwards really had a big vision.

“He risked his reputation. He also bought paintings by Arthur Boyd and Inge King’s sculptures and made the University much more cutting edge culturally speaking.”

The Gallery now has 146 Nolans, including 58 wildflower panels on permanent loan from Lady Nolan.

Some of them will be on display in the new exhibition, *Wide Open*, at the Lawrence Wilson from Friday.

This exhibition aims to investigate and challenge a major theme in Australian culture: the powerful and longstanding view of Australia as open terrain. Some of Sidney Nolan’s works explore mid-twentieth century human interactions with the land.

*Wide Open : Space and Belonging in Modern Australia* continues until October 21.
Many people consider that China and India, because of the size of the demand in those countries for education overseas, are likely to become the new wave of international students in Australia.

While the flow of international students to Australia from South East Asia continues to increase steadily, recent changes to Australian visa regulations threaten to strangle the opportunities for large cohorts from these countries. Fortunately another wave appears to be forming on the horizon, the Study Abroad market in North America and Europe.

**Study Abroad**

- Short term program of not-for-degree studies with full fees
- Short term studies in a partner institution with mutual fee waiver

In 1999/2000 nearly 130,000 US students participated in Study Abroad programs – an increase of 14 per cent on the previous year. Of these, 4,000 went to Africa, 8,000 to Asia, 81,000 to Europe, 19,000 to Latin America, 4,000 to the Middle East and 6,000 to Oceania. However while the growth in the biggest market, the UK (27,000), was 7 per cent, growth in the next most popular English speaking market, Australia (5,000), was more than 23 per cent.

**Dr Bruce Mackintosh**

Director, International Centre

(pictured here on a recent trip to New York)

And this represents less than 1 per cent of the total of 15 million students graduating each year in the US. In his last year in office, President Bill Clinton called for a target of 20 per cent of US students gaining an overseas experience by 2010, and 50 per cent by 2040. As one example, the University of California has calculated that unless it can send 20 per cent of its students abroad at any one time, it will have insufficient capacity for the expected influx of new students, despite its major building program.

The increasing popularity of Australia as a destination for these students is undoubtedly enhanced by the current exchange rate. In private institutions in the US, tuition fees converted to Australian dollars can be two-to-three times those of Australian institutions, and when the differences in living costs are also taken into account, then it is not surprising that the total cost of a study abroad program in Australia can be covered, with plenty to spare for administrative costs. Even State University fees go a long way towards this, and ‘packages’ of exchange and study abroad students can be sent to Australia at little extra cost to the students.

The increasing knowledge of Australia and its high quality education, the enthusiastic ‘marketing’ by returning US students, and the success of the Sydney Olympics, have all resulted in an unprecedented profile for Australian universities in US universities and colleges. Barring massive depreciation of the greenback, it is likely that these institutions will soon be beating a path to the doors of the best Australian universities, and many are already doing so.

Some Australian institutions are responding by declaring a moratorium on student exchange in order to concentrate on this fee-generating activity, but at UWA we take a broader view and seek opportunities for Australian students to spend a semester or two in a similarly enriching experience. However, in this case the exchange rate, which is so effective in the study abroad market, acts against us. It is fortunate that there is a steady increase in the number of travel grants available to assist UWA students going abroad, and exchange programs in Northern America and Europe are still particularly popular.

Meanwhile the Student Exchange and Study Abroad Office continues to provide high quality service to both incoming and outgoing students, and its reputation among our partner institutions is resulting in strong recommendations to potential partners.

The new wave of international students on campus is gathering momentum.
Prostate cancer is the second most common cancer among men but little research has been done to find out why.

The incidence of prostate cancer has increased over the past decade and now researchers in the Department of Public Health are keen to discover whether an increasingly sedentary lifestyle and high fat diets contribute to the 12,000 new cases of the cancer identified each year in Australia.

Dr Lin Fritschi is investigating the occupational risk factors and her colleague Gina Ambrosini is looking for likely nutritional causes of prostate cancer and benign prostatic hypertrophy (bph), an age-related increase in the size of the prostate gland that often requires surgery.

Dr Fritschi said that although prostatectomy (the treatment for bph) was now the most common surgical operation on a male internal organ, virtually nothing was known about why the prostate gland became enlarged in about ten per cent of all men.

Dr Fritschi, Ms Ambrosini and Associate Professor Malcolm Sim from Monash University, have a $324,000 Healthway grant to study 1500 men over three years.

"There has been great research into the hormonal and genetic influences on prostate cancer, but the fact remains that you can’t change your genes," Dr Fritschi said.

"But you can do something about your diet and your occupation. That’s why Healthway was happy to fund us: because of this ability to change. Although the natural history of prostate cancer is not fully understood, it is thought to have a long latent period that provides an ideal time for intervention and for changing behaviours that might contribute to the condition,” she said.

The group will study 500 men who have prostate cancer in 2001; 500 men who have had a prostatectomy this year; and 500 men who have no problem with their prostate glands.

“We will be looking at smoking, drinking and exercise patterns as well as occupation and diet – the complete lifestyle,” said Dr Fritschi, an epidemiologist.

“The cost to the community of prostate conditions in terms of loss of life, loss of quality of life and medical costs, is huge. I hope we can determine some way of turning it around.”
Monday 10 September

BOTANY SEMINAR
‘Just probing around: estimating the water transpired by shrubs and trees growing in a wide range of environments using the Heat Ration method’, Peter Landman, Botany. 4pm, Room 2.14, Second Floor, Botany.

Friday 14 September

MICROBIOLOGY SEMINAR
‘DC in Queensland. PBMC one day, plasmacytoid the next’, Dr Thelma Koppi. 9am, Seminar Room 1.1, First Floor, L Block, QEIMC.

ASIAN STUDIES SEMINAR
‘Seeing “Karen” in the union of Myanmar’, Nick Cheesman. 1 to 2.30pm, G.25, Ground Floor, Social Sciences Building.

INFORMATION MANAGEMENT AND MARKETING SEMINAR
‘Optimal allocation of road investment between maintenance and improvement’, Renlong Han. 11.10am, Social Sciences South 2233.

Tuesday 11 September

RAINE LECTURE

LAWRENCE WILSON ART GALLERY TALK
John Barrett-Lennard will talk on ‘Deep-water/aqua profunda and the 2001 Venice Biennale.’ 1pm, LWAG.

SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘Phytophthora in wildflower farms’, Jeff Boersma. 4pm, Agriculture Lecture Theatre.

HISTORY SEMINAR
‘Pressures for the first factory act: the health and morals of apprentices act (1802)’, Dr Joanna Innes, University of Oxford. 4 for 4.30pm, PSA Lounge.

Wednesday 12 September

CHEMISTRY SEMINAR
‘In-situ analysis of the interaction of flotation reagents with surfaces’, Greg Hope, Griffith University. 12 noon, White Lecture Theatre.

INSTITUTE OF ADVANCED STUDIES SEMINAR
‘The importance of a son to rural Chinese women’, Dr Jianguo Li, Member of Essex. 7.30pm, Postgraduate Lounge, Hackett Hall.

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
‘Anchoring solutions for offshore developments in deep water’, Professor Mark Randolph, Civil and Resource Engineering. 4pm, Blakers Lecture Theatre, Mathematics Building.

Thursday 13 September

FREE LUNCHTIME CONCERT
‘Spiked heels’, Emily Green-Armytage on piano. 1.10pm, Octagon Theatre.

Monday 17 September

BOTANY SEMINAR
‘The effect of multiple catastrophic events on population demography’, Dr Kathy Meney, Syrinx Environmental Pty Ltd. 4pm, Room 2.14, Second Floor, Botany.

HISTORY SEMINAR
‘Aspects of migration and gender: history of Italian communities overseas’, Professor Donna Gabaccia, University of North Carolina. 4 for 4.30pm. Call the Department of History for further information.

Tuesday 18 September

LAWRENCE WILSON ART GALLERY TALK
‘Wide open: private and public space in Australia’. This exhibition explores the powerful and longstanding view of Australia as ‘open terrain’. 1pm, LWAG.

SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘Reversing the latitudinal gradient of plant production: the conflict between data and dogma’, Dr Michael Huston, Oak Ridge National laboratory, USA. 4pm, Agriculture Lecture Theatre.

Wednesday 19 September

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
‘How to build a better muscle’, Dr Nadia Menzies, University of Oxford. 7.30pm, Social Sciences Lecture Theatre.

ANATOMY AND HUMAN BIOLOGY SEMINAR
‘Genetically modified plants: food for thought?’ Professor Chris Leaver, University of Oxford. 7.30pm, Social Sciences Lecture Theatre.

Thursday 20 September

FREE LUNCHTIME CONCERT
‘Majesterial brass’, The WAIM Brass Ensemble. 1.10pm, Winthrop Hall.
**Friday 21 September**

**MICROBIOLOGY SEMINAR**
‘Transcriptional regulation of HOXII’, Rachael Brake, TVW ICHR. 9am, Seminar Room 1.1, First Floor, L Block, QEII MC.

**AGRICULTURE SEMINAR**
‘Using reflectance in weed science and agronomy’, Dr Warwick Felton, Tamworth Crop Improvement Centre, NSW Agriculture. 1pm, Agriculture Lecture Theatre.

**CIVIL AND RESOURCE ENGINEERING SEMINAR**
‘Combined loading of shallow foundations’, Dr Susan Gourvenec. 3.45pm, Room E151, First Floor, Civil Engineering Building.

**CLIMA SEMINAR**
‘Chemical and biochemical basis of resistance in chickpeas to Helicoverpa’, Krishna Mann; and ‘Evolution of dormancy and other reproductive strategies in clovers in response to grazing and phosphate use’, Dr Hayley Norman. 4pm, Agriculture Lecture Theatre.

**Monday 24 September**

**2001 SHANN MEMORIAL LECTURE**
‘Shifts in the focus of government economic policies’, Ted Evans. 6pm, Social Sciences Lecture Theatre. Admission is free and open to all.

**LIFE ON MARS?**

**ADVANCE NOTICE**

**Tuesday 25 September**

**INSTITUTE OF ADVANCED STUDIES SEMINAR**
‘Incidence, essence and developmental systems?’ Susan Oyama, Professor of Psychology, City University, New York. 6pm, Geography Lecture Theatre 1.

**Wednesday 26 September**

**RAINE LECTURE**
‘The UK prospective diabetes study: results and follow-up’, Professor Carole A. Cull, Senior Statistician, University of Oxford. 5.30pm, The Mary Lockett Lecture Theatre, QEII Medical Centre. All welcome.

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**CALL FOR NOMINATIONS FOR MEMBERSHIP OF ACADEMIC BOARD**

Lecturers, Postdoctoral Research Staff and General Staff

Nominations for election of Lecturers, Postdoctoral Research Staff and General Staff for membership of the Academic Board are now called for. Elections will be carried out by postal ballot for the lecturer and general staff category, and at the meeting of the Board on 19 September for the postdoctoral research staff category. The intent of beginning the process at this early stage is to ensure that those elected in these categories are eligible to nominate for election to the Academic Council at the November Board meeting, if they so wish. Those elected to the Academic Council by the Board must be members of the Board.

Further details of the requirements in each category and the nomination process are given at the following web address:
http://www.acs.uwa.edu.au/reg/AC-BOARD/BOARDNOMINATIONS.HTM.

Nominations from women are encouraged.

Prospective nominees should note that the Academic Board has four scheduled meetings per year, at 2.15pm on the third Wednesday of each of March, June, September and November. The meeting dates in 2002 will therefore be:

- 20 March
- 19 June
- 18 September
- 20 November

Anybody who requires further information on the role of the Academic Board is welcome to contact Mrs Jackie Massey (extension 2457).

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**CENTRE FOR STAFF DEVELOPMENT**

**What’s on Next**

Places are available in the following workshop due to close within the next month. Further details are available on the CSD Web page: http://www.csd.uwa.edu.au/programme/ or by contacting CSD on ext. 1504 or csdoffice@csd.uwa.edu.au.

- Introduction to WebCT
- Stress Management through Meditation
- English as a Second Language: Advanced Speaking Skills
- Designer’s Introduction to WebCT
- Staff Selection for Chairs of General Panels
- Staff Selection Skills for Panel Members: Faculty of Arts, Faculty of Engineering and Mathematical Sciences
- Using WebCT Quiz
- How the University Works: A Basic Guide to UWA’s Organisational and Committee Structures
- Copyright: Your Computer, the Internet and Multimedia
- Winning Research Grants

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LAND AND WATER RESOURCES R & D CORPORATION

PUBLIC WORKS RESEARCH INSTITUTE, JAPAN

WATER AND RIVERS COMMISSION

WOODSIDE OFFSHORE PETROLEUM PTY LTD
Mr T. McGrath and Prof B. Ronalds (left), Oil and Gas Engineering: ‘High reliability organisations research’ — $75,784 (2001-3).

FOR SALE
MOUNTAIN BIKE Iron Horse 900 ARS, 17” Easton aluminium frame, Rockshox Judy XC, Nuke Proof hubs, Kooka cranks, XT groupset, LX V-brakes, Weinmann Bontrager rims. Excellent condition. $1500 ono. Contact Fiona on 9341 7550 or 0438 662 340.

AQUARIUM, 85cm x 55cm x 35cm on black metal stand. 3’ UV and white light, separate housings with extra tubes for each. Fluva filter, protein skimmer, air filter, medications etc. $150. Contact Therese on 9403 2148.

PIANOS (x 2) for sale. One Yamaha, ebony finish only 10 yrs old ($7000) and one German, walnut finish, 100 yrs old ($2750). Both iron frame and EXCELLENT condition. Contact J. Gillett on ext. 3324.

VOLKSWAGEN GOLF CL 1997, silver metallic, auto, a/c, power steering, dual airbags, full service history. One owner, only 20,000 kms, like new. $19,000. Telephone Dr Janca on 9224 0293.

COMMODORE VN 89, lowered, Senator body kit, automatic, rego to January 2002, power steering, air con, alarm and immobiliser, central locking, mags, 2.5” sports exhaust, Alpine stereo, tinting, $8500 ono. Call Rosemarie on 2778 or 9446 9246 a/h.

EX-DISPLAY VIVIANNES COLLECTION DESIGNER CLOTHES, Autumn/Winter 2001, predominantly 12, some 14/16. All half price, from $29.50 to $94.50 – jackets, tops, bottoms, various colours and styles. Contact Therese on 9403 2148.

HOME GYM AND EXERCISE BIKE, $700 the lot plus a fitness rider. Brand new, never used. Cost $1000. Separately – Gym $500, Bike $300, rider free with either. Contact Therese on 9403 2148.

BASSENDEAN HOUSE. 3 bedroom, quiet location, close to primary school, available for 6 months, non-smokers, cat OK, $150/week, 9316 4284 or email pkepert@bigpond.net.au.

WANTED TO RENT
VISITING RETIRED COUPLE FROM UK wanting to rent furnished accommodation in Perth/Fremantle from October through until March 2002. Non-smokers. Excellent references. Contact Dave on 0438-05-7056 or email dwebb@ecel.uwa.edu.au.

HOUSE OR APARTMENT REQUIRED for Canadian couple on sabbatical: 1 October 2001 to 28 February 2002 (approximately). Prefer furnished, relatively close to campus. Please contact Associate Professor Wallace Couling, Plant Sciences, ext. 7979 or email wcoulings@cyllene.uwa.edu.au.

Bids should be accepted by Monday 24 September with departments to have first option

CONDITION refers to the general condition of item (1 = as new; 2 = good; 3 = serviceable; 4 = unserviceable). AGE refers to the nearest year.

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