Young physicists from UWA are again in the spotlight, with two students ranking among five Australian scientists to win the inaugural American Australian Association (AAA) fellowships.

The five young academics will share $200,000 in grants to further their studies in the United States.

Eric May and Katie Humphry, along with three doctoral and post-doctoral students from Adelaide, Sydney and Canberra are the first winners of what will eventually be a prestigious multi-million dollar fund to promote educational exchange between the US and Australia/New Zealand and to strengthen academic, technology and business relationships.

Eric, who is completing his PhD jointly with Physics and the Centre for Oil and Gas Engineering, with a Maude Gledden studentship, has a big six months ahead of him. He will submit his thesis in spring, marry in January, then start his post-doc at the US National Institute for Standards and Technology in February.

He will be working with the Fluid Science Group in Maryland. It was the head of this group, Dr Michael Moldover, who inspired Eric to pursue his PhD in applied thermodynamics and to make the theories applicable to the north-west shelf.

Under the supervision of Associate Professor Terry Edwards, he has specialised in advanced measurement of complex fluid mixtures, patenting his own device to optimise the production of gas condensates from gas reserves.

“After the AAA fellowship, the Institute is funding me for a further year. I’m not sure of the immediate future after that. But the spirit of these fellowships is to bring back what you’ve learned from the US, so I expect I’ll be back in WA one day, in the oil and gas industry, or teaching in the field, which I really enjoy.”

Katie is already in the US, completing her second postgraduate internship at IBM’s Almaden Research Center. Katie Humphry, working on spintronics research at IBM in California, will expand her work at Harvard.
In all the debate about gender equity our own LDW (Leadership Development Program for Women) shines as a beacon of enlightened progress.

We recently held the 2002 ‘graduation’ dinner and awards evening for the participants in the latest successful group. Jen de Vries and her team have continued the success of a creative program which enables women staff at UWA to develop skills and knowledge to increase their participation in positions of leadership and decision-making at all levels. And to contribute to the cultural change which symbolises UWA’s emergence as a model work environment of equality of opportunity in a world of inequality.

It is the 250 women who have passed through the program who ultimately have made LDW what is over 8 years of growing success. LDW is seen as an exemplar (both within UWA and the wider community) for women’s leadership development.

LDW has also raised questions and challenges for the future at UWA involving women staff. For example, how do we add ‘diversity’ to gender, towards a more truly representative staff profile? How do we promote ongoing development, and provide opportunities to accrue merit, in the working structures of UWA? And, how do we assist staff, particularly our successful professional women, to find and sustain a balance between a personal, social and working life?

Significant benchmarks concerning gender in staffing and students are moreover now emerging from the AVCC’s task force on our sector at large. We need to ensure that UWA is always equal to, and ideally in advance of, national progress on gender issues.

For example, in the year 2000 women represented some 44 per cent of the academic staff at lecturer level at Australian universities (5,065 of 12,030) and 16 per cent at senior lecturer and above. The 2002 UWA figures being, 47.4 per cent for academic staff and 19 per cent at senior level. For non-academic staff, women represented more than 50 per cent of higher education workers up to level 7 (24,195) and 36 per cent at level 10 and above (606). At this institution the 2002 figures are 48 per cent to level 7 and 32 per cent at level 10 and above.

In general, however, despite significant progress over the decade since 1990, women’s representation declines as the seniority of the position increases.

It is accordingly cheering to find that at the Executive level, there has recently been some notable success: eight of the 38 members of the AVCC are women (21 per cent), which will be raised to nine later this year. (The latest comparative figure for US women university presidents is in fact 22 per cent). Just ahead of this figure, some 24 per cent of DVCs and PVCs are women (36 of 153) – the pool from which most VCs still emerge.

Looking to students, 56 per cent of all Australian undergraduates are women, with a better spread than 10 years ago across disciplines which include science, computing and engineering. And while the rate of women’s entry into post-graduate study has been historically low, in 2000 the figure had risen to 48 per cent of higher degrees by research (17,883) and 49 per cent of higher degrees by course-work (29,328) – again involving a greater spread of research areas. The figures for 2002 are expected to be a further advance in women’s participation.

For women, this has all been an arduous and often painfully slow road to equal opportunity, success and self-fulfilment. But there are now some indicators of progress which suggest that the future has rich possibilities in developing a culture of equality.

Programs like LDW tell us why that position has not yet arrived, and why that professional commitment for women’s advancement is still essential.

Yet LDW is also an encouraging testimony as to what can be accomplished when a University commits itself to achieving equality of opportunity. And when some remarkable women show the way.
The three children Kathy Ziatas gave birth to during her PhD research were a help to her work rather than a hindrance.

Dr Ziatas, who was recently awarded her PhD with distinction, took 10 years to complete her research into a specific area of childhood language development.

Having her own three children learning about language at the same time meant that she always had a private control group!

Although university administrations usually frown on postgraduate students taking so long to complete a PhD, Dr Ziatas felt that the longevity of her studies had many advantages.

"It definitely gives you more time to think about your subject," Dr Ziatas said. "And to me, that was what a PhD was all about – having the opportunity to think deeply about my subject and taking the time to understand and further the knowledge in that area."

"It also meant I could keep working and helping to support our family."

Dr Ziatas is a speech pathologist and she said it was important to her to keep her clinical skills up to date while she was studying. "I think I would have had a problem getting back into clinical practice if I’d taken four years off."

"My research fed off my clinical work and my clinical work benefited from my research. It all worked together really well. I kept up my private practice by working two days a week, studied two days and many mornings, and raised our three children."

The only disadvantage in taking so long that Dr Ziatas could think of was that sometimes it could be hard to keep your research 'at the edge' but she had not found this a problem, probably because she was working at that edge all the time.

Her research is into theory of mind, the ability to understand another person’s mental state and therefore their intentions. Dr Ziatas particularly examined how this ability relates to the ability to communicate effectively.

"Usually children develop theory of mind at age three to four. They start to show they understand how other people think. At the same time children are starting to be quite sophisticated in their language use."

"But I wanted to know what happened with children with autism and Asperger's syndrome (similar to autism)."

After visiting hundreds of children in their homes, talking with them, playing with them, videotaping them, then transcribing the visits, Dr Ziatas found that children in the autistic spectrum do have problems with theory of mind and do show related difficulties with their use of language. They don’t understand the difference between thinking and knowing something. They have trouble predicting other people’s actions and they don’t understand language such as jokes that rely on saying one thing but meaning another.

In her clinical work Dr Ziatas has found that with enough structured teaching, children with autism and Asperger’s syndrome can be taught to understand theory of mind. "But we don’t know yet whether learning it is the same as having it develop naturally," she said.

Her PhD was partly funded by the School of Psychology and she was supervised by Professor Kevin Durkin.
One of the biggest social problems in the United States is not gun ownership or illicit drugs – it is illiteracy.

And that problem is felt most keenly in the inner cities, where linguist William Labov is trying to help African-American, Euro-American and Latino children to learn to read.

Professor Labov, from the University of Pennsylvania, delivered a public lecture and a paper to a recent linguistics conference at UWA, Language in Time: Language Evolution and Change.

He is at the beginning of a large-scale testing program in 25 inner-city primary schools in Philadelphia, Atlanta and California, where he says that up to 55 per cent of children never learn to read properly.

For 40 years, he has been gathering data and watching one reading program after another fail to address the needs of minority inner city children, including white Americans.

In his book Language in the City, he established that the language of the inner city, African American vernacular English (‘black English’) was not simply slang, but a well-formed set of rules of pronunciation and grammar capable of conveying complex logic and reasoning.

“But the reading materials produced for these kids just haven’t addressed their needs, the concerns and their interests,” Professor Labov said.

He and his group have been working in schools for five years, developing reading materials that reflect these children’s culture, and doing linguistic analysis of problem areas in reading, so they can direct help to where it is most needed.

Professor Labov is sure that if the minority children, the Latino children (of Hispanic descent) especially, could learn to read, it would eventually have an effect on American society and its unemployment, poverty, violence and crime patterns.

“They come to school in kindergarten with great educational aspirations. But they find it hard to learn to read a language that is almost foreign to them and they don’t get the help that kids with other problems, like dyslexia, get,” he said. “In fact, in many inner city schools, a majority of the children perform at levels that are characteristic of dyslexic readers in suburban areas.”

Professor Labov was one of several international speakers at the four-day conference, which was organised by Dr John Henderson and the Language Science group, and co-ordinated by the Institute of Advanced Studies, and drew together some of the most important strands of current research in evolutionary biology and genetics, cultural change, cognitive science, linguistic ecology and comparative and historical linguistics.

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US woos UWA’s top young scientists

Research Centre in California, working with another UWA physics PhD graduate Dr Liesl Folks.

The first class Honours graduate has been working on spintronics research and has been accepted to study for her PhD in experimental condensed matter physics at Harvard University.

“I’ve very much enjoyed my time at IBM and the opportunity to work in a research lab that is so well equipped. I’ve also enjoyed the pace of industrial research, and have learnt a great deal about the research process in industry,” Katie said.

At this stage, Katie intends one day to create her own spintronics research unit in Australia.

Both she and Eric named Associate Professor Cyril Edwards and head of Physics, Dr Ian McArthur, as inspirations to them. Katie also said she had been inspired by Dr Bob Stamps, one of her Honours supervisors.
Admiral Sir James Stirling has changed Pamela Statham-Drew’s life.

The senior lecturer in economics has recently completed an academic biography of WA’s first governor, the culmination of nearly eight years research.

“Imarried in 1996 and Stirling has been with me longer than my husband! He’s definitely part of our marriage!” laughed Dr Statham-Drew.

She was asked to take on the project after a descendant of Stirling’s, Edward Buckley, came from England in 1994 to ask the then Governor of WA to approve an academic biography. “My PhD was on the economic development of the Swan River colony from 1829 to 1850 so I was a natural choice,” Dr Statham-Drew said.

“It’s been a wonderful, serendipitous journey on which my husband Nick has joined me. We’ve been to England following different lines of research almost every year since 1994. We’ve met some great people and got to know the real James Stirling. I’m sure I would have liked him. He had a great sense of humour, although he didn’t let himself get close to too many people,” she said.

Dr Statham-Drew took her manuscript to the Governor, Lt-Gen John Sanderson, late last year. “He loved it and went to the Premier on my behalf, who has given us $25,000 towards the publication.”

She and her husband had already donated $10,000 towards the project and were prepared to give another $10,000 when Dr Statham-Drew’s department and faculty generously extended a grant.

The manuscript is being edited at UWAPress where reproduction of original illustrations will make publication very expensive.

“We hope to have it published and ready to launch in February next year because Stirling’s oldest living relative, the Hon Lavinia Fleming, will be in Perth.”

Lavinia, whose great-great-grandmother was one of Stirling’s daughters, is one of many people who have helped Dr Statham-Drew with the biography and who have now become part of her life.

“Our relationships with Stirling’s descendants have turned up the most amazing things. For instance, Edward Buckley just happened to stay overnight at a bed and breakfast in Dunblaine, in Scotland, and found the place housed several original portraits of Stirling and his immediate family! Another family member, Margaret Lenfestey, gave us access to a huge collection of family letters, written between Stirling’s 11 brothers and sisters, which has given rise to a separate, smaller publication of his correspondence.

“But apart from the great enjoyment it’s given us, it’s an important work because Stirling is the only Australian founding Governor without a full academic biography. Little was known of his family and political background or the formative influences on the thinking of this reformist but establishment man,” said Dr Statham-Drew.

“His initiative in exploring and persuading the British Government to colonise the Swan River area reveal how he prevented a possible ‘split country’, as France was interested in the vacant western third of Australia.

She said the brothers of Stirling’s wife, Ellen Mangles, had a great influence on his life and most of them ended up owning most of his land. “There had always been a suspicion that he was a land-grabber but I’ve sorted most of that out, I hope.”

Dr Statham-Drew said that, apart from his wife, children and the Mangles brothers, Stirling was only really close to the Fremantle harbourmaster, Mark Currie, after whose wife Matilda Bay was named.

She said the hardest part of the book to write was the Battle of Pinjarra. “It has been rewritten many times and is now considerably shortened, but I hope my research will eventually be published in a separate article.”

The biography is dedicated to Dr Statham-Drew’s father, Francis West Statham, who died three years ago. “As Director of the Commonwealth Department of Housing and Construction, he actually brought to fruition Stirling’s dream of a naval base in Cockburn Sound,” she said.

“Stirling is the only Australian founding Governor without a full academic biography.”
Make merry at medieval meet

When the Countess of Salisbury's stocking fell down while she was dancing with Edward III and he stopped to retrieve her garter, the king muttered a warning which still retains its meaning five centuries later.

“Honi soit qui mal y pense,” he said, which has been translated as “Let him be shamed who thinks ill of this” or “Evil comes to him who evil thinks.”

The Order of the Garter and the language of shame is the subject of the keynote address at the Perth Medieval

and Renaissance Group’s tenth annual symposium at UWA on August 3.

Associate Professor Andrew Lynch, Head of English, Communication and Cultural Studies, and a keen member of the PMRG, said the idea of studying medieval literature was to find how to relate it to our modern social cultural practices and ways of thinking, as in the story of Edward III, the Order of the Garter and the associated moral lesson.

The group’s symposium will present papers on early modern fashion, the development of spelling, women’s autobiography in 16th century France, languages used in 12th century England and nationhood in Shakespeare’s plays.

Undergraduates Antoinette Schapper and Shane Spiteri will present papers on language and poetry.

PMRG, which advertises its meetings on a distinctive bright yellow flier adorned with a big red rose, is a group comprising staff, students, graduates and anybody else who is fascinated by early modern times. It has been meeting once a month on campus for more than 20 years.

The meetings focus on a particular topic, on any medieval or renaissance issue, from medicine to art, not just literature and language.

Some of them are historians, some lawyers, but they all have a love of

Continued next page ▶
**Canterbury on computer**

**bringing the tales to the 21st century**

Dr Toby Burrows from UWA’s Scholars’ Centre and Dr Peter Robinson pore over an early 15th century edition of Canterbury Tales, one of the University library’s treasures

Computer software developed by evolutionary biologists is being used to analyse medieval literature.

Chaucer’s *Canterbury Tales* is a rambling epic of the 14th century and Dr Peter Robinson, from De Montfort (Leicester) University, is using the software to study the work in detail, ascertain exactly how each part relates to other parts, and bring it to a wider audience, via electronic publishing.

“My work is very analogous with evolutionary biology,” said Dr Robinson, a leading international figure in the field of humanities computing, who visited UWA recently.

“With the help of computer programs, I can work out that different scribes shifted from working on one of Chaucer’s manuscripts, to another, and left their mark. It is exactly the same in nature, where genetic material is mingled by different ancestors,” he said.

Dr Robinson said there were about 80 different manuscripts of *Canterbury Tales*, up until about 1500, with printed editions available after that.

“Computers are extremely useful in simply storing all the words, then enabling me to compare different versions word for word,” he said.

“It has sent people mad trying to do it unaided! Seriously, two people fit that category: a woman who died in her 50s while trying to unravel Chaucer and a man who ended up an alcoholic!”

Dr Robinson has spent about 12 years on Chaucer and says he is about half-way through his work. “But I fear it’s like painting the Sydney Harbour Bridge,” said the former Australian. “When I think I’ve finished, it will be time to start over again.”

He said it became fashionable in the 1950s and 60s to use computational maths to analyse literature texts. That expanded to using primitive computers with punch cards. So what he’s doing is simply an extension, even though studying an ancient text with the 21st century’s latest electronic tools might seem incongruous.

“I would say we have probably come to a better understanding of *Canterbury Tales*, in terms of time and nature of the text, since using computer programs to help us,” he said.

“We are still experimenting to see which methods work the best. And they have been used in the study of other works in which there are lots of manuscripts with lots of variations where it’s hard to relate them to each other,” he said.

Using the biologist’s programs for analysis, Dr Robinson and his team at De Montfort’s Centre for Technology and the Arts have developed and adapted software for electronic publication of the manuscripts.

“We have published CD-ROMs and, soon, three full texts will be up on our Website, so people can see what’s going on.”

It’s certainly a different way of communicating. More than 600 years ago, while Chaucer was writing *Canterbury Tales* (which was never finished), he wanted to tell one of his scribes to be more accurate. So he wrote it to him in a poem.

Dr Robinson visited UWA as a guest of History, English, Communication and Cultural Studies, and the Perth Medieval and Renaissance Group.

He gave a public lecture and had discussions with staff from the Faculty of Arts, Humanities and Social Sciences on electronic publishing, text encoding and software development.

*Continued from previous page*

things medieval. President Anne Scott and Andrew Lynch belong to a medieval singing group. Similar group, Sneak’s Noise, will perform at the symposium.

Late last year, Dr Lynch and Associate Professor Philippa Maddern from History, set up a medieval and early modern discipline group to fit within the new structure of the University. Within it is a self-help group for postgraduate students, The Round Table, to help them overcome the isolation of studying alone. The Round Table meets regularly to bring together medievalists and early modernists and to provide them with information on research, travel, software and other resources.

PMRG’s symposium, *Language Life and Literature in Medieval and Early Modern Europe*, will be held at St Catherine’s College from 8.30am to 5pm on August 3.

For information or registration, contact Anne Scott on amscott@cyllene.uwa.edu.au or register at the symposium.
Two of our best
join the
best in the world

When Nobel Laureates and promising young scientists gathered in Germany this month for the 2002 Nobel Laureate Conference, two students from UWA – Pia Sappl and Emma Craven – joined them.

They are the first UWA students and, they think, the first Australians to be invited to the prestigious conference. And it all started with Emma winning a prize two years ago.

“I won the second year chemistry prize and I was talking to the Dean (Professor George Stewart) at the prize giving. He said he had just visited a university in Germany and made some reciprocal arrangements with them and would I like to go there to do Honours? I had been thinking of going to Melbourne, but I took up his offer – without being able to speak a word of German!” she said.

Emma, a science-engineering student, completed her degree in chemistry with an Honours year in Germany last year. Her supervisor at the Albert Ludwig University of Freiburg, Professor Christoph Janiak, was so impressed with her work that he asked her to return for the Nobel Laureates’ conference. He invited Emma to bring another student, and the faculty chose Pia.

Both students are working in areas of research that could bring benefits to Western Australia.

Pia, who completed a bachelor of science with first class honours in biochemistry, is conducting PhD research into enzymes that contribute to herbicide resistance. Working with a common weed, Arabidopsis thaliana (which recently had its genome sequenced) She is exploring the workings of enzymes that exist in all plants and have a role in detoxifying herbicides.

“It’s important that we know how this gene family is regulated and how it works because it could be significant in controlling the growing problem of herbicide resistance in weeds,” says Pia. “We also know that these enzymes play a role in helping plants respond to environmental stresses such as salinity or drought. Understanding more about this diverse group of proteins could help us to engineer crops to cope with these stresses.” Pia’s supervisors are biochemist Dr Harvey Millar, from the School of Biomedical and Chemical Sciences, and Dr Karam Singh from CSIRO.

Emma, majoring in chemistry and environmental engineering, hopes to use her chemistry background to work in the area of environmental contaminants when she completes her engineering degree at the end of next year.

She graduated with first class honours in chemistry earlier this year. Her honours research explored the formation of polymers containing metal, not just plastic.

“My research was looking at ways of developing new polymers that can meet different needs, both medical and environmental,” says Emma. “For instance if you could develop a polymer containing metal that could be applied as a film to water, it might be able to draw contaminants to it. Having a background in chemistry – which I love – I would like to apply my knowledge in a useful way, working in the area of environmental contaminants. I did vacation work with Alcoa, trying to develop a treatment for waste residue, and I really loved working in that area.”

Since 1951, Nobel Laureates in chemistry, physics and physiology/medicine have met annually in Lindau, Germany, for informal meetings with students and young researchers.
Those who are familiar with Sonic Hedgehog could be forgiven for thinking that Joanne Britto earned her PhD researching a computer game.

That is, until you find out that Dr Britto is a developmental biologist, who studied for her doctorate at Cambridge University, delving into what controls brain development.

Her thesis recently won a major Raine Research Award, which she will use to further her work with the WA Institute of Medical Research (WAIMR) and the Neurotrauma Research Program.

“The sonic hedgehog story starts with geneticists who work with Drosophila, a fruit fly. When you knock out one gene of Drosophila, the fly gets a set of spikey bristles, so researchers called the gene ‘hedgehog’. When they wanted a name for the vertebrate version of the gene, they couldn’t resist going with the computer game name and calling it ‘sonic hedgehog’,” Dr Britto explained.

“It was actually the game that came first, not the genetic research!”

Her research found that the gene sonic hedgehog (Shh) was crucial for rapid, extensive expansion of the developing brain.

“The brain starts during early embryogenesis as a linear tube. This subsequently expands or ‘balloons’. My research focused on what factors controlled this expansion and provided evidence that this phenomenon was under genetic control. We showed that the Shh pathway controlled this expansion, a process previously thought to be purely mechanical,” she said.

Dr Britto is now working in Dr Samantha Busfield’s laboratory at WAIMR. She has a prestigious Peter Doherty postdoctoral fellowship from the National Health and Medical Research Council.

“I am still working in the field of developmental biology, but instead of studying brain development, I’m looking at regeneration. We are trying to isolate the molecules that are present in embryos and allow neurons to regenerate or conversely molecules in the adult that stop the regeneration process.

“It’s a small part of the nerve regeneration field but I’m hoping to characterise the role of growth and survival factors in spinal cord regeneration.

“I’m planning to use the Raine research prize to go back to Cambridge and carry out some experiments that our laboratories cannot perform here: We think one of the molecules is involved in neural determination and I want to test that. I will also be using some of the funds to visit a lab in America to learn how to isolate embryonic and adult neural cells.”

When Tim Macartney-Snape stood at the top of Winthrop Tower last month to launch the Heart Foundation’s annual fitness campaign, he felt right at home.

“But I’m disappointed they wouldn’t let me climb to the top of the tower on the outside. I had to come up the internal stairs – and I’ve never been much of a caver!” said Australia’s most famous mountain climber.

Tim was the first person to climb Mt Everest from sea-level, without using oxygen equipment. With a record like that, you would expect him to follow a strict fitness regime.

“But I hate the idea of training, of working away at keeping fit, without enjoying it,” he said. “I love to walk and run with my dog and doing that several times a week keeps me fit without it becoming a drag.”

Tim and the Health Minister, the Hon. Bob Kucera, climbed ten flights of stairs to launch Climb to the Top, a campaign aimed at getting sedentary office workers to climb stairs instead of taking lifts, for the month of August.

“If a team of ten workers each climb ten flights of stairs every working day of the month, they will reach the equivalent of the peak of Mt Everest.

To register a team for Climb to the Top, call the Heart Foundation on 9388 3343 or visit their Website at www.wa.heartfoundation.com.au
UWA’s links with Asia were cemented and celebrated last month in both China and Singapore.

Professor Paige Porter, Dean, International Relations, led a small contingent to Nanjing, on behalf of the Vice-Chancellor, to celebrate the University of Nanjing’s centenary.

And Deputy Vice-Chancellor, Professor Alan Robson, addressed a Business School gathering in Singapore, announcing new initiatives to cement UWA’s commitment to Singapore.

“We have a memorandum of understanding with the University of Nanjing, which is one of the top five universities in China,” Professor Porter said. “One of the Deputy Vice-Chancellors was at UWA two years ago on an AVCC Chinese Administrators’ Shadowing project and a full delegation from Nanjing has also visited us.

“There are several UWA staff who have research connections with Nanjing, especially in the field of science and particularly in chemistry and geology.”

Professor Porter said UWA hoped to developed a deeper relationship in the future, with the possibility of setting up a joint centre for higher education on both campuses.

She recalled a speech she delivered last November at Nanjing, on globalisation. “During question time, after my speech, I was asked what did I think China could do to counter Americanisation, specifically the sprouting of McDonald’s restaurants around the country.

“I said: ‘Before I answer, let me say there is probably no city in the world that doesn’t have a Chinese restaurant!’”

Dr Bruce Mackintosh, Director of the International Centre and Professor John Dodson, in charge of offshore programs for the Business School also went to Nanjing. They were joined for the celebrations by Professor John Dodson, who was already in China, conducting a research project in the western desert.

“There were four days of meetings and tours of both the old and new campuses, for hundreds of international visitors and expatriate Nobel Prize winners. They culminated in a giant celebration at a stadium where they released clouds of pigeons and balloons – at the same time!” Professor Porter said.

The group was joined by Professor Barry Brady, Dean of Engineering, Computing and Mathematics, and Robin Napper, Director of Research and Development at UWA’s Forensic Science Unit, when they visited Beijing, then Shanghai.

In Singapore, where the Business School and the Graduate School of Education have run offshore courses for several years, Professor Robson announced that, from 2003, UWA will sponsor a scholarship to a student from each of Singapore’s four Polytechnics to do undergraduate study at the Business School.

He told the gathering that UWA was committed to a long-term presence in Singapore to the mutual benefit of the University and the city-state. He also announced the funding of a program of visiting scholars from UWA to deliver free seminars and public lectures; the exploration of a staff exchange agreement; and the development of individual academic staff’s links with their Singapore colleagues.

“Singapore is a good friend with whom we intend to engage in the long term as a good corporate citizen,” Professor Robson said.
UWA's Health Science graduates will be some of the best prepared professionals for the job market.

The health science degree, whose first students will graduate at the end of next year, is devoting part of this semester (for third years) to the learning and developing of generic skills, which will give students a practical base for moving into the workforce.

Lorna Rosenwax, co-ordinator of the Health Science degree programs, said she had been looking through newspaper employment advertisements to gauge jobs that would be available for graduates.

"I noticed that many jobs demanded similar generic skills: the ability to communicate, to work in a team, a positive attitude, management skills, ability to manage time, and a proficiency in computing skills," Ms Rosenwax said.

"I realised that these students wouldn't necessarily have these practical skills and that now was the time for them to develop these areas, before they go out on their fourth year practical placement."

Ms Rosenwax, who has been in on the planning of the degrees from their inception, has devised a unit she calls Health Industry Practicum, in which third year students will spend three hours a week learning and honing skills that would benefit a graduate from any discipline.

They cover communication, including managing working relationships and different forms of written communication; self management and leadership skills; documenting, accessing and handling information; computer skills; and project management. The students will have a session with diversity officers Malcolm Fialho and Bev Hill, to improve their awareness and acceptance of sociological differences in the community.

"Valuable ideas have also been received from Jen de Vries of the Centre for Staff Development, Brenda Clare from Social Work and Lyn Peacock from Archives and Central Records," Ms Rosenwax said.

"The students who are completing combined degrees – health science and commerce or economics – will probably go straight into health administration. The others are likely to find work in health research, health promotion and project management."

The degree programs were instigated after a plea from the health industry that universities were not producing the sort of graduates the industry needed.

"Health administration and management has become the domain of either a health professional with no management skills or an accountant with no medical background."

"These graduates will provide the much needed combination of both. The degrees are ideally suited to people who want to work in the health system without patient contact."

"I hope this unit will encourage students to reflect on their work practices, to acknowledge skills they don't have and to take the opportunity to learn them in a safe non-competitive environment."

EXPOSing the University

University staff are pulling out all the stops to ensure that Expo 2002 will have something for everybody.

For lovers of classical music (or fans of the 1970s film, '10'), the University Orchestra will perform Ravel's Bolero in Winthrop Hall at noon on Expo day, Sunday August 25.

People with testosterone overload (or prospective engineering students) can watch an exciting test drive of UWA Motorsport's 2002 prototype racing car, before it's put through its paces at the intervarsity Formula SAE competition in December.

A more cerebral pursuit (along the lines of ABC TV on a Friday night) will be a mock trial presented by law students and their teachers. And television viewers who prefer the commercial channels' medical dramas can tour one of the world's most modern medical and surgical training facilities, etc.

A comprehensive program for Expo will be published with The West Australian on Saturday August 17.

For more information about Expo, contact Ian Lilburne, Project Manager, Public Affairs on ext 7302 or ian.lilburne@uwa.edu.au
Reflections of an erstwhile Head of School

Professor John Tonkin

As the seemingly endless saga of University restructuring unfolds, at a time when most Heads of Schools are just beginning to settle into their new roles, I enjoy the dubious honour of being UWA’s first ex-Head of School, having served for three and a half years since the Faculty of Arts piloted the new structure.

Academics rarely take a benign view of administration, and those who allow themselves to be diverted from teaching and research into administrative roles for any length of time tend to be seen as lapsed academics. Indeed, a former Vice-Chancellor of this University once publicly described himself - perhaps ironically - in precisely those terms.

This was not a view that I shared. I saw the role of an academic administrator as an academic task, nothing more or less than promoting and enhancing the conditions under which teaching and research can flourish. It’s a good theory, but how does it work in practice, and how does the new structure being created at UWA measure up to this standard?

As a pilot experiment, the School of Humanities has had a chequered history. On the positive side, it has enjoyed strong affirmation from the University executive, and goodwill from academics widely scattered across the University. It is blessed with outstanding staff, many of whom have been promoted through academic merit to the highest levels (though their very success has created a financial burden). It has an enviable record in teaching and research.

On the other hand, the School was conceived in inherited debt, and was popularly known at its founding as the “school of basket cases” with no realistic possibility of escaping the cycle of debt. After all, cross-subsidisation is a phantom unless there are funds with which to cross-subsidise. The University’s budget model remains incapable of delivering a sufficient level of funding to sustain our teaching and research.

Though we benefit from a more generous “output” index for publications than many Universities, a model that calculates research grant “inputs” through dollar value rather than success rate will never deliver the funding that is needed and deserved.

The challenge of the last few years, therefore, has been to manage deficits responsibly, and to spend resources carefully in pursuit of our mission, taking a long term rather than a short-term view.

Notwithstanding the difficulties that we have faced, I remain convinced that creation of larger budgetary units in the new structure was not only desirable but necessary - although, in retrospect, I would have preferred to see a Faculty-wide School to create greater funding flexibility. But at least we were able to establish equitable patterns of research and infrastructure support for staff and postgraduates and put behind us the bad old days when resource levels depended on one’s departmental funding base. In that sense the administrative goal of enhancing teaching and research has been tentatively advanced, though the inadequate level of resources placed severe limits on what could be achieved.

On another aspect of the restructuring, however, I continue to maintain a heretical view. Abolition of departments seems to me a wholly unnecessary consequence of adopting the School structure.

In many of the great universities of the world, departments have surrendered their budgetary autonomy without losing their role as the primary focus of academic identity. Many departments in our Faculty have a long and proud history and enjoy national and international recognition that transcends fluctuating budgetary structures. Abandoning departmental identity involves a loss both within and beyond this University for which neither the School nor the “discipline group” is an adequate substitute. As the VC has recently observed, there is great value in a name!

I do not presume to speak for other Faculties which may well be driven by different dynamics. But in my experience over more than thirty years at UWA, departments in the Faculty of Arts, far from building walls around themselves, have shown themselves capable of entering into multiple and fruitful academic relationships with other departments and faculties and I see no indication that abolishing departments will enhance those possibilities. Interdisciplinary groups can easily be grafted on to a structure that continues to recognize departments as a natural focus of identity for academic staff.

If the image of Sisyphus, condemned to roll an enormous rock eternally uphill, offers a beguiling metaphor for the role of Head of the School of Humanities, the high calibre of our staff and their unflagging commitment to the studia humanitatis nevertheless provides some grounds for a perverse optimism in the future.

Professor John Tonkin stepped down in June as Head of the School of Humanities. A former Head of History in the 1980s, he has served over the last decade in various administrative roles within the Faculty of Arts — as Dean (1991-1993), Head of European Languages (1996-2000), Linguistics (1999-2000), Philosophy (2000) and inaugural Head of the School of Humanities (1999-2002).
Research Grants & Contracts

ARTHRITIS FOUNDATION OF WA
A/Prof Graeme Carroll, Medicine: ‘Strategies to control inflammation and joint damage in rheumatoid arthritis’ — $40,000 (2002).

AUSTRALIAN NUCLEAR SCIENCE & TECHNOLOGY ORGANISATION, WA PETROLEUM RESEARCH CENTRE
A/Prof Terence Edwards (right), Oil and Gas Engineering and Dr C. Buckley (external): ‘Small angle neutron scattering from petroleum reservoir rocks’ — $235,299 (2002-04).

AUSTRALIAN RESEARCH COUNCIL LINKAGE/ALCOA
Dr M. C. Brundrett (external): ‘Factors influencing the recovery of orchids and their mycorrhizal fungi in the post-mining landscape’ — $90,735 (2002-04).

CANCER FOUNDATION OF WA
A/Prof Christobel Saunders, Surgery: ‘MRI ultrasound screening for women at high risk of breast cancer’ — $46,925 (2002).

DEFENCE SCIENCE & TECHNOLOGY ORGANISATION
Dr Christopher deSilva, Electrical and Electronic Engineering: ‘Information extraction for the Named entity task’ — $50,000 (2002).

DEPARTMENT OF HEALTH & AgeING: MISCELLANEOUS

MINERALS & ENERGY RESEARCH INSTITUTE OF WA
Dr Annette George (right) and Dr Fiona Burns, Geology and Geophysics: ‘Trace fossils and their application to high resolution sequence stratigraphy and associated cement distribution: middle Jurassic to lower cretaceous interval, North West Shelf’ — $183,558 (2003).

NHMRC: EQUIPMENT GRANTS
Dr Deborah Trinder, Prof Timothy Davis, A/Prof John Olynky, Dr Jane Allan, A/Prof David Bruce, Medicine: ‘Imager for genomic and proteonomic analyses’ — $60,000 (2002).

NHMRC SUNDRY GRANTS
A/Prof Theo Gotjamanos, Dentistry and Dr Andrew McWilliam, Microbiology: ‘Low strength silver fluoride solutions as clinically effective bacteriostatic cariostatic agents in carious primary teeth’ — $75,800 (2002).

RIRDC
Dr Matthew Tonts, Geography and Prof A. Black (external): ‘Impacts of changing farm business structures on rural communities’ — $250,000 (2002).

WA CHILD PROTECTION COUNCIL
A/Prof Michael Clare (right) and Dr Maria Harries, Social Work and Social Policy: ‘Prepare an options paper on mandatory reporting of child abuse’ — $40,000 (2002).

WA HEALTH PROMOTION FOUNDATION
Dr Elizabeth Milne and Dr Carol Bower, Public Health and Ms Margaret Miller, WA Centre for Child Health Research: ‘Food frequency questionnaire calibration to estimate child folate intake’ — $19,989 (2002).


WATER AUTHORITY OF WA
Dr Peter Davies, Agriculture: ‘Wellesley Creek pump back’ — $24,150 (2002).

Asthma research needs your help

Some of the best asthma research in the world takes place here in Perth and the Asthma and Allergy Research Institute is always on the lookout for volunteers to help with their work.

Currently, the Institute needs people who are using a reliever medication or inhaled steroids to control their asthma symptoms to take part in clinical drug trials.

The researchers need volunteers who use only Ventolin or Bricanyl. The study will examine whether a standard puffer taken once daily can help people gain better control of their asthma, compared to twice a day. Trials will range from three months to 12 months.

Asthma patients on low dose inhaled steroids are needed to trial a new and novel inhaled steroid that has potentially fewer side effects than what is currently available.

There are also trials aimed at moderate to severe asthmatics with allergies. Volunteers are required to trial a new and novel anti IgE medication given by injection. This will be a 12-month trial.

The Institute also has research projects which need helpers.

Researchers are conducting a genetics of asthma study to deter-mine why some people get mild asthma, while other get more severe asthma, and why responses of individuals to specific asthma thera-pies can vary so much.

Both asthmatics and non-asthmatics can participate in this project. One visit of about 45 minutes is required.

Another project is investigating whether white blood cells in the lungs release substances that can be measured in induced sputum, blood and urine of patients with asthma. Again, just one visit required, but this one can take up to three hours.

If you or anybody you know can help with these studies, please contact the Institute at QEII on 9346 3198 or email aair@cylene.uwa.edu.au

Continued on back page
Tuesday 30 July

SCHOOL OF POPULATION
HEALTH SEMINAR
‘A record linkage study of obstetric complications in women with psychotic illness and health outcomes for their offspring’, Vera Morgan. 11am, Population Health, Hew Roberts Lecture Theatre.

Thursday 1 August

PUBLIC LECTURE
‘Law ethics, science in an age of biotechnology’, Professor Lori Andrews, Professor of Public and International Affairs, Woodrow Wilson School, Princeton University. 7pm, Social Science Lecture Theatre.

Wednesday 7 August

IAS EVENT
‘Biographising Mussolini and Molotov’, Professor Sheila Fitzpatrick, University of Chicago and Professor Richard Bosworth, History, UWA. 6pm, Lawrence Wilson Art Gallery.

Friday 9 August

LWAG FLOOR TALK
‘Readings from Australian literature’, Terri-ann White, IAS. Terri-ann will present a selection of readings relating to Australian myth and history from modern and contemporary Australian literature. 1pm, LWAG.

Friday 2 August

PUBLIC LECTURE
‘Law ethics, science in an age of biotechnology’, Professor Lori Andrews, Chicago-Kent Law School; Professor Loanne Skene, University of Melbourne; Associate Professor Margaret Otolowski, and Professor Donald Chalmers, University of Tasmania; Judy Allen, UWA; Professor Alan Bittles, Edith Cowan University; Professor Alan Petersen, University of Plymouth; and Dr Judith Thomson, Murdoch University. Registration required: $30/$10 students. Contact Judy Allen on 9380 3437. Beverley McNamara on 9380 2742 and Terri-ann White on 9380 2114. 9am to 5.30pm, Law Lecture Room 1.

Tuesday 6 August

SCHOOL OF POPULATION
HEALTH SEMINAR

Tuesday 13 August

SCHOOL OF POPULATION
HEALTH SEMINAR
‘Skeletal complications of cancer, and the endocrine and paracrine roles of PTHrP’, Professor Jack Martin, AO, Director, St Vincent’s Institute of Medical Research and Professorial Fellow, University of Melbourne. 5pm, The Mary Lockett Lecture Theatre (QEIIMC).

Monday 27 August

INSTITUTE OF ADVANCED STUDIES
LECTURE SERIES
‘Science as uncertainty: from fractals in classical and European religious themes, including eight oil paintings, for example, a helmeted miner gleams out of the landscape rather than simply using it as a background. Shining out from each landscape is a head associated with it, for example, a helmeted miner gleams out of the landscape of Mt Tom Price.

The myth and history theme starts with the famous Ned Kelly lithographs, followed by a series of ‘head and landscape’ not shown at the Gallery before. These paintings, like so many of Nolan’s, make a feature of the landscape rather than simply using it as a background. Shining out from each landscape is a head associated with it, for example, a helmeted miner gleams out of the landscape of Mt Tom Price.

The Burke and Wills series lead to a collection of classical and European religious themes, including eight oil paintings based on the myth of Leda and the Swan. The final group is four out of nine paintings in a turbulent and fiery red and pink series depicting Dante’s *Inferno*, which only serious scholars of Nolan are likely to recognise as his, even though he painted them around the same time as the Kellys.

Alone in a separate gallery is a rare installation of Nolan’s Other murals rarely hung are his flower collections – much more impressive on the walls than in books.

While his best-known works are centred on that unique landscape, Australia’s iconic artist has been able to go further, to embrace other aspects of Australian life not always immediately recognisable as his work.

And, as the University owns more Nolan masterpieces than anybody else in the world, we feel a particular kinship to this collection.

Sidney Nolan: Myth and History is just part of that collection, a range of works on paper, now on show at the Lawrence Wilson Art Gallery.

Come see another side of Nolan

The outback of Australia is so vast, it is hard to imagine anything that can stretch further.

But Sidney Nolan has.

While his best-known works are centred on that unique landscape, Australia’s iconic artist has been able to go further, to embrace other aspects of Australian life not always immediately recognisable as his work.

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Sidney Nolan: Myth and History is at the Gallery until August 18.
There are times when all of us have challenging issues to deal with. When personal or work related issues make life difficult, the University has an Employee Assistance Program (EAP) to help staff manage these issues more effectively. The EAP is a professional, confidential counselling and consultation service. The services of Davidson Trahaire are available FREE to you and your family.

Counselling is also available for staff on campus through the Support Centre (Student Services). Call Tom Sputore on extension 2426. For appointments, please ring Davidson Trahaire on 9382 8100 or if urgent 9480 4847 (24 hours). Their offices are located at Suite 11, 100 Hay St, Subiaco. Further information can be obtained at www.admin.uwa.edu.au/sho

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FOR MEDICAL RESEARCH

WESTERN AUSTRALIAN INSTITUTE

A/Prof Frank Christiansen and Dr Adrian Charles, Pathology, Dr Jan Dickinson, Obstetrics and Gynaecology and Dr C. S. Witt, Molecular Immunology and Instrumentation: ‘Immunogenetics of recurrent miscarriage and pre-eclampsia’ — $48,000 (2002).

A/Prof George Yeoh (left), Biochemistry, and Dr Deborah Trinder, A/Prof John Olynok, Dr Jane Allan, Dr Wen-Shian and Dr B. R. Dix, Medicine, and Dr Mark Watson, Microbiology: ‘Establishment of novel systems to analyse the hepatic response to Hepatitis C Virus In Vivo and In Vitro’ — $225,000 (2002-04).

Dr Karen Kroeger and A/Prof Karin Eidne (right), WAIMR: ‘Protein-protein interactions in endocrine and neuroendocrine regulation and metabolism using novel resonance energy transfer methodology’ — $210,000 (2002-04).

Dr Deborah Trinder, A/Prof John Olynok, A/Prof Peter Leedman and Dr Andrew Thomson, Medicine: ‘Characterisation of novel RNA-protein co-activator interactions in breast cancer cells with BRET’ — $210,000 (2002-04).

Dr Andrew Thomson, Medicine and Dr Karen Kroeger and A/Prof Karin Eidne, WAIMR: ‘Characterisation of novel RNA-protein co-activator interactions in breast cancer cells with BRET’ — $210,000 (2002-04).

WANTED TO RENT

WANTED, room in share house for visiting Chinese scholar. Please contact Megan Dallas at megan.dallas@lei.org.au or 9381 0723.

ACADEMIC VISITOR FROM USA on sabbatical requires fully furnished, one-storey four-bedroom house in Cottesloe/Claremont or surrounding area from approx. mid December 2002 to May 2003. Preferred location would be near the beach and access to public transport. Please contact Sabine Betts, sabine@re.uwa.edu.au or phone 9380 3801.

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MAZDA 323 PROTEGE, 1999 silver, manual, air con., CD stacker, power steering, window tint, central locking, air bag, immob., lic. until December. Full service history, excellent condition. $15,000. Tel: 8000 or 9297 1048 (a/h) or 0414 346 952.

SUZUKI GN250, 1990/1, 15,000 kms. Incl. rego. $5800 ono. Contact Sandra on 9380 2414 or 0421 580 951.

RENTAL EQUIPMENT FOR SALE

Dr Andrew Thomson, Medicine and Dr Karen Kroeger and A/Prof Karin Eidne, WAIMR: ‘Characterisation of novel RNA-protein co-activator interactions in breast cancer cells with BRET’ — $210,000 (2002-04).

Dr Deborah Trinder, A/Prof John Olynok, A/Prof Peter Leedman and Dr Andrew Thomson, Medicine: ‘Characterisation of post-transcriptional gene regulation of iron transporters in hereditary haemochromatosis’ — $48,000 (2002).