Australia’s Governor-General is fascinated by local advances in knee surgery.

His Excellency Major-General Michael Jeffery was most interested in the technology developments made by UWA and collaborator Verigen International, at Hollywood Private Hospital.

Verigen and Orthopaedic Surgery (School of Surgery and Pathology) run the only facility in the southern hemisphere for matrix-induced Autologous Chondrocyte Implantation, or growing cartilage from a patient’s own knee, which is then transplanted into the patient.

Until recently, patients needing cartilage replacement had to send a sample of their knee cartilage to Copenhagen for cell culture. When it was grown, it was returned, then implanted by an orthopaedic surgeon.

The UWA-Verigen facility at Hollywood now offers the same procedure for introducing biological implants for knees, and it has been used by more than 80 hospitals across Australia, New Zealand, Singapore and Hong Kong.

Professor Ming-Hao Zheng, Director of Research in Orthopaedic Surgery, said Major-General Jeffery had become interested in the development of the biotherapy technology and he had taken the Governor-General to the laboratories where the human chondrocyte culture had been developed, with Verigen, a German biotechnology company, over the past three years. The Managing Director of Verigen Australia, Paul Anderson, explained the technology to His Excellency.

Professor Zheng has a distinguished academic career in the field of osteoclast biology, bone pathology and orthopaedic tissue engineering.

He said the collaboration with Verigen had resulted in more than $300,000 in funding from the parent company, which had been used not only for research support but to provide scholarships for orthopaedic surgeons from around the world, to come to UWA to learn the procedure.

Professor Zheng and Professor David Wood, the Head of the Orthopaedic Surgery Unit, have been awarded National Health and Medical Research grants based on their collaboration with Verigen.

The facility is the only GMP certified cell culture laboratory in WA. GMP – Good Manufacturing Practice – is awarded where goods are consistently manufactured to a high standard of quality, and is judged on premises, equipment, personnel, documentation and quality control audits.
Common weeds and garden insects hold the key to important research in evolutionary and molecular biology.

Two of the world’s leaders in these areas of research use modest weeds and insects to produce ground-breaking results – and they will be doing that work here, at UWA.

Western Australia’s two successful Federation Fellows, announced by Education Minister Dr Brendan Nelson last month, will both continue their research at UWA, leading the world in their respective biological fields, and fulfilling one of UWA’s eight strategic research priorities, the management of natural and agricultural and natural ecosystems.

The Fellowships were awarded to Professor Leigh Simmons, who has been working at UWA’s School of Animal Biology for more than ten years, and Professor Steven Smith, who came to UWA’s School of Biomedical and Chemical Sciences on sabbatical last year from the University of Edinburgh.

Professor Simmons uses insects to conduct his evolutionary research “because they do not present the same ethical problems as say, birds or mammals do.

“In general, people don’t consider experimentation on insects an ethical issue. That is not to say I take them for granted. I feel that invasive procedures and numbers of animals used should be minimised wherever possible,” he said.

Ten years after coming to WA from the UK, Professor Simmons won the UK’s most prestigious award for research in zoology, the 1998 Scientific Medal of the Zoological Society of London. He has attracted people from all over the world who want to work with him.

Professor Steven Smith spent seven months here last year collaborating with UWA colleagues in the discipline of biochemistry and molecular biology.

He was one of the group of molecular biologists who isolated the first plant gene, back in 1980. He is recognised as a world leader in the field of plant metabolism and the application of functional genomics tools to its study.

Over the past eight years he has worked exclusively with the plant Arabidopsis thaliana, a common weed in the northern hemisphere, which is extremely easy to propagate.

He uses ‘reverse genetics’ to work out how genes work. He isolated mutant genes because, as he says, “it’s easier to see how something works when it goes wrong or breaks down!” He and his research team have mutants available for about half of the 28,000 genes in Arabidopsis.

Professor Steven Smith uses ‘reverse genetics’ to understand how genes work.
Involvement with the community used to give job-seeking graduates the edge. Now community service is an expectation rather than an extra.

For the first time, students from the Faculty of Economics and Commerce are taking part in the global community movement, Students in Free Enterprise (SIFE).

Five UWA undergraduates are representing the University in Melbourne in the Australian national SIFE presentations this month. Each team gives a 24-minute presentation and delivers a booklet detailing their community service projects.

The best, judged largely by the CEOs from the sponsoring companies, win cash prizes and will go on to the international finals in Spain later in the year.

UWA team leader Neil Leonard said the students also had the opportunity of vacation work with the sponsors, which include some of Australia’s biggest companies, Arnott’s Biscuits, Cadbury Schweppes Ltd, Country Road, Ernst & Young, Kimberley-Clark Australia, KPMG, Qantas Airways Ltd, Dick Smith Foods and Woolworths Ltd.

The students are also attracted to SIFE by the exposure to big business that it offers.

“But philanthropy is something that has been missing from our faculty,” Neil said. “You hear about medicine and law students getting involved in the community, and we decided it was time the econs students did the same.”

SIFE, established in the US in 1975 (but only run in Australia over the past five years), provides tertiary students with an opportunity to make a difference in their communities and to develop leadership, teamwork and communication skills through learning, practising and teaching the tenets of their academic disciplines, to enable other to participate more fully and effectively in the economic and social life of the nation.

The central element is using their knowledge to teach others something that will benefit them, and, through that teaching, to confirm what they have learnt.

The UWA group is finalising details with the Salvation Army to work on two projects with them during second semester.

They will be working with the family support centres, helping low income people with budgeting, and developing a budgeting pack that the Salvation Army can distribute to its clients.

They will also be working with Employment Plus, a company under the wing of the Salvation Army, presenting tutorials to help people seeking employment.

These tutorials are already run by the company, but they don’t have enough volunteers to help the clients individually. The students expect they will be joined by more of their colleagues in second semester so there

Continued on page 4
The announcement by Federal Education Minister Brendan Nelson of the allocation and distribution of extra University places in Western Australia while welcome at one level was extremely disappointing at another.

Many talented young West Australians will now be precluded from their choice to study at The University of Western Australia as a result of how the places on offer to the State were allocated. The decision has reaffirmed my view that often governments, both State and Federal, appear to have little real understanding of the particular higher educational needs of aspiring young West Australians. WA Universities need to tackle this lack of understanding, or the inability to deal with our situation logically and equitably, to ensure that young West Australians get the best opportunity to maximise their potential.

We have to lift our collective game to ensure decision makers think long term by considering the value of higher education to not only individuals but also the multiplier effect in economic and social terms of quality students becoming quality graduates making significant contributions to the State, and thereby the nation.

At present it is not clear that they focus sufficiently on the social and economic importance of the issue and the long term impact of not doing so. At the risk of being accused of pushing the ‘UWA barrow’ the logic of our submission in seeking the bulk of the numbers on offer seemed to me irrefutable.

The University has been allocated 355 new places for 2005, just 22 per cent of the new places allocated to Western Australia. That outcome fails to address the extremely high cut-off scores at UWA which are among the highest in Australia. This means many more students will be forced to take their second or third choice of university or course.

Many well-qualified students in Western Australia will again be denied access to the high quality education offered at UWA. The decision has ignored an obligation to students that have the highest ability to have the greatest opportunity to access their preferred institution and field of study. Of further concern is that very few places were made available for Engineering or Science, areas to which the future of the State is inextricably linked.

The UWA submission that argued for a greater share of the numbers on offer at this time was based on the very high demand from high quality students who have been unable to access their preferred course and preferred institution because of insufficient places in WA. More than half of the top 1500 students who were unable to obtain a place at their preferred institution this year had applied to attend UWA.

We had sought to remedy the historical disadvantage of UWA in the 1980s and 1990s when growth was unreasonably constrained and redirected elsewhere. It is our belief that the pressure on places from high quality school-leavers puts pressure on places for others in need of access, particularly those of mature-age and in equity groups.

Despite the disappointment we will continue to argue the merits of quality and equity of access for the benefits of young West Australians and the State.

Alan Robson
Vice-Chancellor

In Memory of Reg Moir

The family and colleagues of the late Professor Reg Moir will commemorate his life in Winthrop Hall at The University of Western Australia on Sunday, August 1, 2004 at 3pm. Emeritus Professor David Lindsay said the informal event would be as Professor Reg Moir would have wanted. A few of his friends and colleagues will present their thoughts of Professor Moir as a reminder of how outstanding a man he was and highlight the significance of his contributions to science, teaching, the community and humanity. Light refreshments will follow the event.

Those anticipating attending should contact Clare Taylor via email at: Clare.Taylor@uwa.edu.au or fax 6488 1129.
A hockey field in Shenton Park is a perfect example of a joint University, school and community facility.

Well over a thousand hockey players of all ages and both genders use the synthetic turf each week during autumn, winter and spring, surrounded by the heritage-listed buildings of the former Lemnos Centre.

UWA leases the property, Shenton Recreation Park, and it is managed by the University’s sports facilities officer, Mike McGowan, a human movement graduate. Between 9am and 5pm on weekdays, the students at adjacent Shenton College have priority, and Mike says they use it about four hours a day during the hockey season.

After 5pm, the hockey facility, Lemnos Field, is used by four local hockey clubs: Western Wolves, Riverside Lions, YMCC and Suburban. The clubs all pay for the use of the field, and close to 150 players train there between 5pm and 9pm, Monday to Thursday.

Local competition matches are played on Friday nights until 10pm, and all day Saturday and Sunday until about 9pm. Mike estimates that about 400 players and 500 spectators use the facility every weekend.

The synthetic turf cost $750,000 to install, and six giant sprinklers are used to wet the surface before training and matches, to reduce friction and burns.

“It’s the closest surface we have in WA to the surface that will be used in Athens, so we have had the Hockeyroos and the Kookaburras both training here at different times,” Mike said. “We have also had hockey teams from Japan and Korea come here to use it.”

UWA hockey players use the superturf at the Sports Park at McGillivray Oval, but Mark runs facilities at both locations. At the Shenton Recreation Park, the facilities also include buildings where UWA runs fitness classes for the Shenton Park College students and seniors. Fencing and dancing classes are also run there, which Mike says helps to keep the centre self-supporting.

One of the three buildings, which were originally used to house returned servicemen from World War I, is being used this year for administrative staff for the University Games, to be held in Perth later this year.

Mike says there is strong ANZAC theme, with the buildings retaining names like Gallipoli House, and a huge heritage-listed Aleppo pine tree, brought from the Greek island of Lemnos after WWI, dominating the skyline. Under its shadow, descendents of the ANZACs play out their own battles every weekend.

Mike McGowan administers hundreds of hockey players – but prefers to play Australian Rules football himself.
The next big thing in technology is actually the smallest.

Nanotechnology, the scientific investigation into materials and devices with dimensions approaching a billionth of a metre in size, is the next revolution, following the boom in microelectronics technology.

UWA is at the forefront of nanotechnology research with the opening of a new $2.5 million nanofabrication facility in the School of Electrical, Electronic and Computer Engineering.

A new centre, The Western Australian Centre for Semiconductor Optoelectronics and Microsystems, incorporates the AG Nassibian Nanofabrication Facility, named in honour of Emeritus Professor Armenag Nassibian, for his outstanding contribution to microelectronics research.

Professor Laurie Faraone, the head of the Microelectronic Research Group (MRG) said the centre was a culmination of work begun at UWA by Professor Nassibian in 1968.

The Deputy Premier, Eric Ripper, whose government has contributed $1 million to the establishment of the centre, through the Centres of Excellence program, said it was an investment in the long-term health of the State’s economy.

“We are on the cusp of a major technological revolution, and WA will be a part of it with this new facility, one of only three in the country,” he said. “This new technology is the contemporary equivalent of building the first computer.”

The opening ceremony was a time to acknowledge the huge amount of work that has gone into making the new facility operational. Head of the School of Electrical, Electronic and Computer Engineering, Associate Professor Gary Bundell, said that, although he probably would not like to be singled out, he highly commended Professor Faraone for his outstanding leadership of the research group and this important project.

Professor Faraone, in turn, commended his colleague Associate Professor John Dell “for dedicated work above and beyond the call of duty.”

Professor Laurie Faraone shows guests the airlock entrance to the controlled clean room (top); Professor Faraone explains to the Vice-Chancellor, Professor Robson, and the Deputy Premier, Mr Ripper, how the clean room works (centre); Professor Faraone and Mr Ripper with Emeritus Professor Nassibian, after whom the nanofabrication facility is named (left)
He said that, after many years of work by many staff members, the opening of the centre and the nanofabrication facility was “the beginning of another journey.”

A/Professor Bundell said the new centre’s current research program was already showing early signs of success.

The MRG has been funded by both the US and Australian Defence departments to develop infra-red sensing technology, that will eventually have applications outside defence.

The group is currently working on helping to bring colour to the technology. Infra-red images are usually two-dimensional, like those seen on black and white television. The new adaptive infra-red sensors being developed will enable a colour image to be produced in real time, which will have many applications, in defence, mineral exploration, pollution monitoring, gas sensing, biomedical instrumentation, security and surveillance, and in the food and agriculture industries.

Research work in the clean room can be watched, without contamination, through a viewing window

The facility has a ‘clean room’ which filters air and purifies it to minimise the number of particles in the atmosphere. Touring the facility after the opening, Professor Faraone explained to Mr Ripper and others that when scientists were working with such microscopic-sized materials, any particles in the air could have a disastrous effect.

“Most of the cost of this facility is hidden behind the walls and in the roof, where pumps and filters and extraction systems are creating the perfect environment for developing this technology,” he said.

Mr Ripper said the government needed to do more in the area of converting science education into jobs in science. “Australia is very good at science but not so good at commerce, and the State Government is determined to address this imbalance between science education and commercialising the knowledge.

A/Professor Bundell said the new centre would support two new combined degrees: a Bachelor of Science in Nanotechnology and a Bachelor of Engineering in Electronic Engineering.

The centre is a collaborative venture between UWA and Curtin, Murdoch and Edith Cowan universities.

Let’s go shopping at UWA

The University has a new secure, easy to use credit card payment service.

University Communications Services (UCS) and Financial Services joined together to find, adapt and put in place the best service for UWA to sell its good and services.

Paul Tzaikos was seconded from the Department of Premier and Cabinet to lead the three-month project, known at UCS as UWA Shopping Cart.

“We didn’t set out to reinvent the wheel,” Mr Tzaikos said. “We looked around the market place for the best system, wanting cost-effectiveness, reliability and security.

“We found we couldn’t go past the system used by the State Treasury.” He said the volume of work generated by the State Government meant that it was cost-effective.

Grant Malcolm and Rodney Ng from UCS have done all the hard work, setting up a Web gateway that links to the State Government credit card payment system. Any schools, centres or faculties who want to use the service simply have to request authority from UCS.

UWA Press and Chemistry have run pilot programs and ironed out the wrinkles in the system. The Press can now easily sell its books on-line and Chemistry’s software is readily available to the marketplace.

The system can be used any time the University would usually receive money, from selling books and software to taking bookings for courses and seminars.

Robert Credaro, Manager Systems Development for Financial Services, said the service would mean an end to the many faxes and cheques that were part and parcel of conferences in the past. “This system means the money goes direct into the University’s bank accounts,” he said.

Mr Tzaikos said that one of the University’s priorities was to create increasing commercial opportunities. “This new system will facilitate that priority,” he said.

To find out more about UWA Shopping Cart and how your school or centre can link up, simply email weboffice@uwa.edu.au

Paul Tzaikos was the systems’ first customer, buying himself a book from UWA Press
Neuro-trauma
in the spotlight

By Maureen de la Harpe

Over the past decade, advances in scientific research have given victims of spinal cord injury the hope – once thought impossible – that one day science will find the breakthrough they dream about.

The patronage of actor Christopher Reeve, who put the world spotlight on the victims of paralysis, has given added impetus and support to the global research.

UWA scientists are part of this quest, and last month PhD student Simone Leaver won the Professor Barry Marshall award for an oral presentation on her work in neuro-trauma research at a symposium of the Australian Society of Medical Research. She was competing in a field of 52 presentations by local undergraduate and postgraduate students, postdoctoral fellows and research assistants.

Simone’s supervisor is Professor Alan Harvey, and she is working with Dr Giles Plant, who has been involved in neuro-trauma research for a number of years. He has been studying cell transplantation techniques and was one of the first scientists to transplant nose cells into rats, where they induced spinal axons to regenerate after injury. The target now is to achieve the same regeneration in humans, but the cells need closer study before that step can be taken, and this type of research is currently being carried out in laboratories around the world.

Simone and Giles are studying two types of cells – Schwann cells and olfactory ensheathing cells. Both have been previously transplanted into rodent models and both have produced some regeneration. The cell types seemed similar but it is difficult to study the way they operate in animals, so Simone has been studying them in vitro, using tissue culture. And the findings revealed that the growth potential of the olfactory (nose) cells was significantly greater than that of the Schwann cells.

“This work has shown that they are quite different cell types: they react differently, using distinct mechanisms when they interact with regenerating axons in this model. Because they have been found to be different, this may ultimately lead to one of them being superior for transplantation,” Giles said.

The next step is to find out what makes the two types work differently. “Our work is currently focused on identifying the molecules that may be responsible for the striking difference that we observed,” Simone said. “A lot of the initial work will be done in vitro, as it is much easier to look at one-on-one cell type interaction than in the complex nervous system of a rodent.”

Simone’s interest in neuro-trauma research began during her undergraduate years and continued with her honours studies. She then turned to oncology for a while – “but it didn’t thrill me in the same way as neuro-trauma research, so I approached Alan Harvey about a PhD.”

Is it the actual laboratory work that excites her or the huge implications behind it? “Both, I think. The work itself is not just molecular biology – I am looking at cells at the whole animal level. And, as part of the neuro-trauma research program we have close contacts with the paraplegic and quadriplegic community, so we get to interact with the people who are going to benefit from our work.”
In a new venture from the School of Physics, 35 high school teachers from around the State visited UWA last month for a whirlwind half-day workshop.

‘Increase your potential in the field’ was the theme of the workshop organised by the Faculty of Life and Physical Sciences, and the aim was to draw on the teaching and learning experiences of UWA physicists. Presenters included head of Physics, Dr Ian McArthur, Professor David Blair, Dr Peter Hammond, Dr Paul Abbot and Associate Professor Tim St Pierre.

“The idea behind it,” says science education facilitator Bronwyn Rakimov, “was to develop the Faculty’s links with schools, starting with the School of Physics and expanding into the other schools. We had participants from State and independent high schools around WA, including Ocean Reef and Rossmoyne Senior High Schools, Guildford Grammar, Australind, Mt Barker and Corpus Christie. Some sent three or four teachers, mainly from physics and chemistry. They were very keen to participate.”

Dr McArthur described the program as a combination of talks, demonstrations, laboratory tours, and hands-on activities. “The focus of the hands-on activities was on giving teachers some exciting, low-cost ideas they could take back and use in their teaching. They included an experiment using a laser pointer to measure the diameter of a hair, and training in the use of liquid nitrogen for demonstrations—including safety issues and transport of liquid nitrogen.”

Senior lecturer Dr Peter Hammond spoke on careers for students, and to illustrate the exciting business opportunities offered by physics he gave examples of biotechnology projects at UWA that had been commercialised.

Professor David Blair, the driving force behind the new Australian International Gravitational Observatory at Gingin, charted the journey in the current global quest to detect gravity waves and open a new window into the universe; and a talk/demonstration on water drew appreciative comments from participants.

Associate Professor Andre Luiten, joint recipient of the 2002 inaugural Premier’s Prize for Early Achievement in Science, demonstrated quantum mechanics in action; and Dr Paul Abbot, member of a winning team in the international 100-Digit Challenge, spoke on computer algebra in teaching and gave a software demonstration.

The enthusiasm of the presenters must have been infectious as feedback from teachers was overwhelmingly positive, with many asking for the event to be expanded to a full day in future.

“Good to see the vitality at UWA,” was one written comment, while another teacher remarked on “the sense that physics is exciting and that there could be many developments in the near future”. The ideas for hands-on activities to use in class were appreciated, as was the talk on making money from physics and the insight into the latest research.

“More please, every year,” requested one participant. Will that happen? “Yes,” says Ms Rakimov. “We will hold another one next year, and hope to make it a yearly event.

Take control of your *asthma*

There are likely to be between 2,000 and 4,000 students and staff at UWA who suffer with asthma.

And, according to asthma educator, Sally Separovic, there are probably many of them whose asthma is not properly controlled.

Sally has spent the past nine weeks setting up an asthma education program at UWA’s Medical Centre, to help and encourage people with asthma to be proactive in managing their condition.

“I would like every student or staff member who has asthma to think about these things: if they are using their reliever medication more than three or four times a week (excluding prior to exercise and not including very severe cases); if they are waking up at night coughing or wheezing; if they ever miss work or classes because of asthma; or if they have a tight chest with coughing or wheezing
The computer, email and the internet have become so much a part of our lives that people in the community who don’t have access to them can feel extremely isolated.

UWA Extension is helping to address this problem with its First Click computer courses for people who have no idea how to use a computer. A series of five-day courses are being run for three months by Extension’s Nigel Dolin, in partnership with the Developmental Disability Council WA.

The program is funded by the WA Department of Education and Training, and aims to provide help (at no profit to UWA or the other partners) at no cost to disadvantaged people.

“We have aimed at women over 40 who are not in paid employment, seniors, people with disabilities (and their carers) and people from low income households and regional areas who may not have had the opportunity to learn how to use a computer,” Dr Dolin said.

“The emphasis is on debunking the jargon, and then teaching some really practical skills like emailing and sending photos to people, basic operation of a computer, writing letters and printing, using the internet to access banking, medical information, bus routes, and so on.

“It’s very liberating for these people: opening up possibilities they wouldn’t have pursued or been able to afford,” he said. “We’re setting up yahoo email accounts for them, which they can access at their local libraries or at any public internet access.”

The program is a great example of the University working collaboratively with the government to help disadvantaged people in the community.

“I’m getting terrific feedback from people, who tell me these new-found skills have changed their lives,” Dr Dolin said.

Part of a letter from an early participant read: “To achieve more via improved computing skills is so helpful to me. I feel more like a ‘normal’ person: less isolated. I am committed to advocating for my eight-year-old son who is adult dependent for all his needs, and for families like ours. Being able to get more out of our computer will maximise what I can accomplish – but with less effort! Thank you Nigel and all responsible for funding and delivering the First Click program.”

Dr Dolin said people who felt they were being left behind by not being computer-literate were often intimidated by computer sales people and young people, who had grown up with computers, and talked too fast.

“These courses are run in small groups, at a relaxed pace and nobody is made to feel stupid,” he said.
a secret that shouldn’t be kept

Sheila McKechnie (left) is loving work experience at the Photographic Unit with Debora Phillips, Colin Murphy (rear) and Dennis Sarson (right)

It’s been on campus on one form or another for about thirty years, and in its current form for the past ten. And yet there are still many out there who are not aware of the existence of the University’s Photographic Unit.

“I didn’t even know you were here,” is a comment regularly made by people who find their way into the unit’s basement premises at the back of the School of Physics, where Colin Murphy, Dennis Sarson and Debora Phillips offer an array of services to staff and students.

“We do film processing – colour, and black-and-white, and slide processing,” says Mr Murphy, who manages the unit and has been with it for more years than he cares to divulge. “We are mainly a support unit – people come in to get posters or documents printed, they may want photos taken for the staff noticeboard, or holiday photos printed. – we do private work as well as departmental work.

“We have a very large scanner, ideal for large format jobs like maps – and we can produce almost exact copies of rare maps, plans and documents. We can scan to a disk or make a copy.

A colour laser copier is also suited to large-scale jobs, as is the unit’s laminator, which can laminate items up to a metre in width. In fact, the unit’s capacity to handle large-scale projects is impressive: “We can print A0 size (the equivalent of 16 A4 sheets) or larger, and we’ve printed posters 10 metres long.”

The unit sells film, does some graphic design and can provide a photographer. Slides can be made from computer files, which can be transferred to the unit through an FTP site.

Prices are competitive as you can see from the unit’s website, www.graphics.uwa.edu.au, and most jobs, according to Mr Murphy, are ready for collection the same day or the following day.

He is currently working on a unique project—high resolution digital panorama images of the campus, and is available to give talks to departments on producing posters on computer.

Offering such a convenient on-campus service, why is the unit is not swamped with work? “The problem is that we are not located in a prominent part of the campus, and so we are not very visible. I visit departments and give talks about our services, but when there are staff changes, the new people don’t know about us – and not enough students know about us either.

“As a result, there is a lot of work going off campus that could be done here more quickly and cheaply.”

So the next time you need a poster laminated, a document scanned, staff photos taken, or your holiday snaps processed, take them to the trio in the School of Physics basement. You’ll get a good price and you can be assured that your holiday photos will be individually corrected.
At a recent ceremony acknowledging the completion of study for four of our AusAID students, the Vice-Chancellor, Professor Alan Robson, reflected on UWA’s long history of support for students from developing countries, dating back to the 1950s. Under the Colombo Plan, students from 13 countries came to Australia, and in the following decades many of those early scholars came to hold positions of prominence in their home countries.

In 2004–2005 the Australian Government will provide $2,133 billion as part of its Official Development Assistance, and the allocation of around $2 million each year in support of UWA’s AusAID students is a small but very important part of that provision. Under the educational portfolio of AusAID there are around 3,000 scholarship students on Australian Development Scholarships (ADS) at the 18 AusAID-contracted institutions.

The term AusAID, abbreviated from the title of Australian Agency for International Development, came into use in 1995, and AusAID students are drawn from developing countries of Southern and Eastern Africa; South, Southeastern and Eastern Asia; Papua New Guinea and the Pacific. The number of scholarships allocated to countries varies substantially, with Indonesia receiving 300 scholarships annually, while Sri Lanka currently receives only seven. Priority areas of study are established through consultation between home governments and the Australian Government. The priority areas may be broadly stated for some countries – such as courses related to ‘Governance’ and ‘Rural Development’ for Viet Nam, while in India until recently students were permitted to apply only for entry into MBA courses, and then only if they were government employees. Although most scholarships are provided for postgraduate study, some countries also offer undergraduate opportunities.

Currently UWA has around 43 AusAID students including two who have returned to do PhD studies, having previously completed a Master degree here some years earlier. More than half the students are research students, and English is a second language for almost all the students. This invariably results in students being required to do pre-course English in their home country, or through the Centre for English Language Teaching (CELT). Overall the support for AusAID students is substantial, starting with their participation in a special introductory academic program taught through CELT, and continuing with the provision of supplementary academic support during their substantive degree program should students require it.

Research students also may access financial support to assist in-country fieldwork research. The AusAID cohort at UWA is a mature and cheerful group coping with the separation from their countries, cultures, and families with great resilience. Many, but not all, of the students are supported in Perth by the presence of spouses and children, and the AusAID scholarship is credited with being the only scholarship program in the world offering some financial support for families accompanying students. Spouses, who themselves are frequently from an educated background and hold professional positions in their home country, are often reduced to employment on the lower rungs of the employment ladder when compared with their work in their home countries. But the family support is invaluable and contributes to the very high success rate that AusAID students achieve in their programmes at UWA. In 2002, three of our female AusAID students had babies while in Australia which resulted in special negotiations with AusAID in structuring their scholarship awards as AusAID generally only provides six weeks maternity leave! All three students successfully completed their Master degrees, and each left Perth with a new son and a new degree, with one acknowledging the Australian experience by giving her son the name of Ozzy.

A requirement under the AusAID contract that students enter into is that they will return to their home country for two years following the completion of their program (and not apply to return to Australia on any visa other than a Visitor’s Visa). At the completion of their award, students are only permitted five days to pack up prior to leaving, and this departure, of course, is well in advance of graduation ceremonies, but not before some ceremony is held to acknowledge their hard work and achievements, and the support given by academic staff assisting them. All of us who are lucky enough to work with AusAID students are impressed by their efforts to achieve, and we all gain culturally by the experience of learning from them in our internationalised setting.
Research Grants Contracts

ABC CLASSICS/AUSTRALIAN RESEARCH COUNCIL LINKAGE
Prof David Tunley, Mr Paul Wright and Dr Suzanne Wijisman, Music: ‘French Baroque Music Project: from Scholarship to Performance’ — $96,000 (2003-05).

AUSTRALIAN RESEARCH COUNCIL LINKAGE
ABC CLASSICS/AUSTRALIAN RESEARCH COUNCIL
Mr Paul Wright, Dr David Edwards, Mr Marc Ruitenberg, Anatomy and Human Biology, UWA Centre for Medical Research: ‘Repair of Spinal Cord Injury using Transplantation Gene Therapy’ — $34,000 (2004).

CHEMICAL STRUCTURE ASSOCIATION (CSA) TRUST GRANTS
Dr Sandra Saunders, Earth and Geographical Sciences, Biomedical and Chemical Sciences: ‘Update and Development of the MCM Website’ — $1343 (2003)

AUSTRALIAN ACADEMY OF FORENSIC SCIENCE

NHMRC

researchcouncil AUSTRALIAN RESEARCH COUNCIL RESEARCH NETWORKS PROGRAM

AUSTRALIAN RESEARCH COUNCIL DISCOVERY PROJECTS

AUSTRALIAN RESEARCH COUNCIL DISCOVERY PROJECTS
Prof Lorenzo Faraone, Dr Jaroslav Antoszewski, Electrical, Electronic and Computer Engineering: ‘Investigation of IF Noise Mechanisms in HgCdTe Heterostructure IR Photodiodes’ — $359,000 (2004-06).

AUSTRALIAN RESEARCH COUNCIL LINKAGE INTERNATIONAL
Dr J Liu, Oil and Gas Engineering: ‘Deep Coal Mining’ — $29,100 (2003-04)

AUSTRALIAN RESEARCH COUNCIL RESEARCH NETWORKS PROGRAM

Welcome to the following staff, who joined the University in April, May and June:

Giovanni Concuc, Whitfield Fellow, Agriculture and Resource Economics
Terri Walker, animal house assistant, Animal Care Unit
Tracie Pushman, assistant curator, Berndt Museum of Anthropology
Anandhi Anandan, technician, Biomedical and Chemical Sciences
Dr Borut Klopic, research associate, Biomedical and Chemical Sciences
Thao Phuong Pham, associate lecturer, Economics and Commerce
John Matassa, programmer, Electrical, Electronic and Computer Engineering
Jian Chen, programmer, Facilities Management
Hugh McCaffrey, technical officer, Facilities Management
Nicholas Newton, assistant programmer, Facilities Management
Christopher Shuttleworth, roof/plumbing assistant, Facilities Management workshop
Paul Wray, computer support officer, Faculty, Arts, Humanities and Social Sciences
David Edwards, manager, Faculty, Life and Physical Sciences
Muhammed Ansar, casual, Faculty, Medicine and Dentistry

Kathryn Cosgrove, casual, Faculty, Medicine and Dentistry
Gaye McMath, Executive Director, Finance and Resources
Christine Adeline, systems officer, Financial Services
Carlos Osorio, accountant, Financial Services
Roberto Catena, lecturer, Graduate School of Management
Ronald Regan, lecturer, Graduate School of Management
Shaun Ridley, lecturer, Graduate School of Management
Sonia Newby, solicitor, Legal Services
Catriona Robins, solicitor, Legal Services
Rosalind Wisenthal, librarian, Library
Dr Maska Law, research associate, Mathematics and Statistics
Gary Bettison, engineering manager, Mechanical Engineering
Brent Fillery, associate lecturer, Mechanical Engineering
Ting Phila, laboratory assistant, Medicine and Pharmacology
Desmond Gaull, records officer, Music
Melissa Cummins, project officer, Office of Development
Mary Boughton, dental clinic assistant, Oral Health Centre of WA
Belinda Millen, dental clinic assistant, Oral Health Centre of WA
Duska Stanisic, receptionist, Oral Health Centre of WA
Susan Taylor, dental clinic assistant, Oral Health Centre of WA

Dr Tina Carter, senior lecturer, Paediatrics and Child Health
Janice Fitzgerald, programmer, Planning Services
Nicholas Cox, computer systems officer, Population Health
Karen Cuneo, research officer, Population Health
Robin Mina, database administrator, Population Health
Venkatasubban Balaji, computer services officer, Primary, Aboriginal and Rural Health Centre
Dr Nicholas Mclernon, regional liaison officer, Primary, Aboriginal and Rural Health Centre
Dr Richard Turner, medical educator, Primary, Aboriginal and Rural Health Centre
Dr Sean Hood, senior lecturer, Psychiatry and Clinical Neurosciences
Megan Prentice, senior research officer, Psychiatry and Clinical Neurosciences
Pamela Slobe, admin assistant, Psychology
Chantelle Lawson, admin officer, Social and Cultural Studies
Russell Dunstan, analyst/programmer, Student Services
Aaron Mitchell, prospective student’s adviser, Student Services
Dr Karl Stoffel, senior lecturer, Surgery and Pathology
Doreen Larke, senior project officer, University Secretariat
Professor Belinda Probert, Pro Vice-Chancellor (Academic), Vice Chancellor
Jill Birrell, graduate research assistant, Water Research

Continued on back page
Monday 26 July
ASTHMA AND ALLERGY RESEARCH INSTITUTE,
2004 MEDICAL RESEARCH SEMINAR SERIES
‘Novel erythropoietin signalling mechanisms and genes involved in hemopoietic lineage switching’, Professor Peter Klinken, Western Australian Institute of Medical Research. 12.30pm, Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

Tuesday 27 July
SCHOOL OF ANATOMY AND HUMAN BIOLOGY SEMINAR
‘Bone Hunting in Patagonia’, Associate Professor Nick Milne, School of Anatomy and Human Biology. 1pm, Room I.81, School of Anatomy and Human Biology.

INSTITUTE OF ADVANCED STUDIES LECTURE
‘Music and Romance in Sense and Sensibility’, Dr Jeanice Brooks, Music, University of Southampton. 6pm, Geography Lecture Theatre 1.

Tuesday 27 July – Wednesday 4 August
INSTITUTE OF ADVANCED STUDIES-DIVERSITY DIALOGUES SYMPOSIUM
The 2004 programme will feature international speakers and focus on ideas around globalisation and politics, transforming organisations and institutions, with a particular focus on workplace and labour, activism and human rights. Contact the Institute of Advanced Studies or consult the web site at http://www. ias.uwa.edu.au/ for updates, programme information and registration fees.

Wednesday 28 July
SCHOOL OF INDIGENOUS STUDIES, INSTITUTE OF ADVANCED STUDIES AND CRIME RESEARCH CENTRE PUBLIC LECTURE
‘Addressing Issues of Fraud in Aboriginal Art’, Dr Christine Alder and Professor Ken Polk, Criminology, University of Melbourne. 6.30pm, Social Sciences Lecture Theatre.

Friday 30 July
AUSTRALIAN FEDERATION OF UNIVERSITY WOMEN (WA)
Mulled Wine Get-together and Practical Help for the IFUW Conference. Drop in if only for an hour and help the Local Arrangements Committee collate and pack the satchels for the IFUW Conference. This is an opportunity to meet other members in a fun environment. We have a wonderful recipe for mulled wine and this will be served along with other refreshments. Anytime between 2pm and 7pm, AFUW(WA) Headquarters, 2 Park Road, Nedlands.

CLASSICS AND ANCIENT HISTORY SEMINAR
‘Narrative, nuance and invention: Constantinople as “The New Rome”’, John Melville-Jones. 3pm, Arts Lecture Room 5.

AARI QUIZ NIGHT
The Asthma and Allergy Research Institute is holding a quiz night to raise funds for further research. It will be held at The Boulevard Centre, 99 The Boulevard, Floreat, commencing at 7pm. Tables of six to eight, $10 per person payable at the door. Bar available, no BYO alcohol please. Bookings and enquiries on 9346 3198.

Saturday 31 July
THE PERTH MEDIEVAL AND RENAISSANCE GROUP ANNUAL SYMPOSIUM
‘Magic and Marvel in the Medieval and Early Modern World’, Dr Corinne Saunders and Professor David Fuller, University of Durham, UK and Dr Sue Brooolum, UWA. The cost is $30 ($20 for students/concession), including coffee on arrival, morning tea, lunch and afternoon tea. 8.30am, St George’s College.

Monday 2 August
INSTITUTE OF ADVANCED STUDY DIVERSITY DIALOGUES PROGRAMME
‘Disability in Australia: Exposing a Social Apartheid’, Associate Professor Christopher Newell, AM, School of Medicine, University of Tasmania. 5.30pm, Alexander Lecture Theatre.

Wednesday 4 August
ROYAL PERTH HOSPITAL SEMINAR
‘Australian Synchrotron: Medical Applications’, Professor Fiona Wood AM, Director of the Royal Perth Hospital Burns Unit and Clinical Cell Culture Ltd; Emeritus Professor Brian O’Connor, Department of Applied Physics, Curtin University of Technology; Professor Rob Lewis, Professor of X-ray and Synchrotron Physics, Monash University; Professor Peter Lay, School of Chemistry, University of Sydney; Professor David Fuller, University of Tasmania. 5.30pm, Alexander Lecture Theatre.

Thursday 5 August
SCHOOL OF PSYCHOLOGY LECTURE
‘Principles of Memory’, Ian Neath and Aimee Surprenant, Purdue University. 12pm, Room 2.33 Psychology, North Block.

POSTGRADUATE SEMINAR SERIES IN CHEMISTRY
‘From alkyne complexes to heterocyclic carbenes’, Simon Brayshaw. 5.15pm, Simmonds Lecture Theatre

TOOHEY ORATION PUBLIC LECTURE
‘Australia and Human Rights: The Frozen Continent?’, Professor Hilary Charlesworth, Professor of Law, Institute of Advanced Studies, Australian national University. 7pm, Social Sciences Lecture Theatre.

Friday 6 August
LAWRENCE WILSON ART GALLERY PUBLIC PROGRAMMES
‘Recovering the Past Through Personal Encounters’, Melissa Harpley, Associate Curator of Historical Art at the Art Gallery of Western Australia. 1pm, Lawrence Wilson Art Gallery.

CLIMA SEMINAR
‘Progress on modelling blackspot disease in field peas’, Dr Moin Salam; To be announced. 4pm. CLIMA Seminar Room

ENVIRONMENT AND SOCIETY SEMINAR SERIES
‘AQUA, NGAPA, WATER, H2O: Anthropological Interpretations on the Presence and Absence of Water’, Dr Sandy Toussaint, Anthropology and Sociology. 4pm, Social Sciences Lecture Room 1, Social Sciences Building (north wing).

Sunday 8 August
AUSTRALIAN FEDERATION OF UNIVERSITY WOMEN GENERAL MEETING
This meeting is open to all members of AFUW. A meal will be provided at the College 6-7pm for those who would like it at a cost of $15. 7pm, M. E. Wood Room, St Catherine’s College.
The Australian Federation of University Women (WA) invites applications for its 2004 Postgraduate Bursaries valued between $2250 and $4000. The purpose of the Bursaries is to meet a special need which will assist women in the completion of a higher degree by research. Applications are also invited for a $3000 Bursary for a woman or girl from the Gascoyne Region to commence or continue her university studies.

The closing date for all Bursaries is Friday 30 July 2004.

Full details and application forms are available from the Bursary Officer AFUW(WA) Inc. PO Box 48 Nedlands WA 6909 Phone 9386 3570 email afuwwa@home.it.net.au

All staff have recently been educated on the latest research, have up-to-date asthma knowledge and can provide you with a comprehensive service to help you get your asthma under control and to maintain that control.

This service can provide you with: 1. one on one asthma education; 2. lung function tests, and 3. the GP 3+ Visit plan. There is no extra cost and appointments with the asthma educator are free.

To find out more about this service or to make an appointment with our asthma educator phone 64882118.

The implementation of this service has been funded by the Commonwealth Department of Health and Aging in partnership with Asthma Foundation of Western Australia
## Classifieds

### Redundant Equipment for Sale

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRICE</th>
<th>AGE (YRS)</th>
<th>CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milling/Drilling Machine</td>
<td>offers</td>
<td>10+</td>
<td>3</td>
</tr>
<tr>
<td>Pedestal Drills</td>
<td>offers</td>
<td>10+</td>
<td>3</td>
</tr>
<tr>
<td>Apple laser writer 16/600</td>
<td>$175</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Apple laser writer 16/600</td>
<td>$175</td>
<td>-</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOR SALE**

**NEUMEYER** German piano, reconditioned and tuned, lovely walnut case with French polish, beautiful sound in all registers, professional valuation and insured for $4500, other offers will be considered. Contact Mary 9386 9230.

**IBM Thinkpad Notebook** 5600, Intel Pentium processor, Windows 98SE, Microsoft Office, built in modem for internet access, leather carry case, $450. Shane 0414 442 829 or 6488 2391.

**POWER Macintosh** 6100 / 66, Microsoft OS 8.0, Microsoft Office, built in Ethernet, 15” monitor, $100. Shane 0414 442 829 or 6488 2391.

**BED**, single, white enamel tubular frame and headboard with wood slats and Slumbercare inner spring mattress, 6mo, excellent condition, $200. Call 9408 0354, 9am-5pm weekdays.

**PANASONIC** electronic typewriter, includes ribbon, correction tape and versatile script daisy wheel. Excellent condition. $200. Call 9408 0354, 9am-5pm weekdays.

**TOYOTA Starlet** 1998, 3-door hatch, 5 speed manual, 70,000kms, air cond, power steering, excellent condition, recently serviced, $8000 ono. Call 0422 313 637.

**2002 DAIHATSU Teros** 4X4, dark green, 5-door wgn, low km 4000, 3 year new car warranty, (2004-2008), air cond, CD, power steering,bullnose etc, excellent condition, $15,000 ono. For more information please call Dan on 6488 8000 or 0404 041 298.

**TROMBONE**, Conn 778H, Bflat/F trigger, medium bore, Beautiful instrument in top condition, only 2 years old, $2500 ono. Email lorna.robertson@uwa.edu.au or phone Lorna, Nick or Sam at home on 9332 8675.

**ASTRA City** 971.6ltr 5-door hatchback, metallic blue, 5-speed manual, air con, remote c/lock, immob, FSH, lic til July, 30,000kms and in good cond, $8500 ono. Call 0413 150 958.

**DAIHATSU Charade** 1990, 3-door hatch, well maintained, good red paint work and interior, 6 months licence, $2600 ono. Emma Green 0403 136 737.

**MUST SELL before going overseas – HOLDEN Barina 93, hatchback, 5 doors, manual, well maintained, perfect condition, $3900 negotiable. LG VCR/DVD combo $290. SAMSUNG fridge-freezer 429ltr $130. HOOVER top loader washing machine $180. BIKES (one with baby seat). Email cassam@theochem.uwa.edu.au, mob. 0423 152 876.**

**BIDS should be accepted by Monday 9 August with schools to have first option.**

Schools are reminded that all University equipment available for sale must be advertised in the **UWAnews**. Receipts should be PeopleSoft account coded 490 (computing with barcode), 491 (non-computing with barcode) or 493 (items with no barcode). If equipment has an existing barcode please contact extension 3618/2564 for details.

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