Young musicians get a sporting chance

by Lindy Brophy

A program designed to protect sports players from injury is being used to help young musicians to accelerate their learning.

Dr Suzanne Wijsman, a UWA lecturer in the School of Music, is using software called SiliconCoach, originally developed by Dr Thor Besier, from the School of Human Movement and Exercise Science, to capture the movements of sports players to identify those which could result in potential injury and also to improve performance.

In the School of Music, digital video technology and SiliconCoach are being used to monitor the development of students’ instrumental skills, to identify problems with technique or posture that could lead to injuries (such as repetitive strain injury) and to test Dr Wijsman’s theory that using instant replay and video in lessons can help young instrumentalists to correct their techniques and enhance their pace of learning.

“I have no doubt that these methods can accelerate learning,” Dr Wijsman said. “I had a couple of students last year who were taking a long time to correct things they were doing wrong. One of them whom I videotaped, has improved her bowing technique on the cello by 100 per cent over six months.”

She said that students sometimes could not believe that they were making the mistakes their teachers identified.

“But when they see it for themselves on the screen, they have a better understanding of what they’re doing wrong. If we...
Higher education at the Crossroads has been launched by Federal Education Minister Brendan Nelson to initiate the major review process of universities and their national role.

Despite the fact that the 100 page document is essentially an ‘overview paper’, being a combination of over-viewing and issues to address, much of the national press treated it as if it already contained firm new government policies.

Indeed, the old and predictable positions were often adopted – dramatic headlines about HECS rises, staffing clamp-downs and efficiency dividends (viz, ‘cuts’ in funding) — to create the drama of conflict in the sector. And it had equally predictable results in producing cries of anger against high student burdens and staffing pressures.

The drama was misplaced. Quite apart from there being no new policy announced, what most reports had missed was the radical challenge actually posed by the overview paper.

Quite simply, the document recognises that Australian higher education is ‘at the crossroads’, in more than just a funding sense; and indeed, that a simple adjustment of funding will not alone meet the needs of our sector or our society.

Critically, what is at issue is the whole future of our university system measured in national and global terms. Presuming that universities are absolutely vital for creating a knowledge-based economy and society, what do we have to do to ensure that our system has the right character, shape and size to meet the needs of living in the 21st century? Especially, how do we produce different styles of universities to meet diverse needs?

The present sector largely reflects the blueprint of the 1988 White Paper associated with Minister John Dawkins – a noted UWA graduate – informed by a series of piecemeal changes, reforms, cuts and additions, the most notable being ‘Backing Australia’s Ability’ – the innovative student and budget allocations of 2000.

It is time to take stock, recognise the problems inherent in an outdated policy framework, and attempt a bold new framework of public policy and public investment in higher education towards a truly pluralistic system of different universities.

I would encourage all of the UWA community to go beyond the press coverage and read the overview paper first-hand – not because it is a perfect document (I personally think it does not sufficiently recognise the creative achievements of the sector in everything from industrial relations to international exports; nor does it give adequate coverage to research issues) — but it is a reasonable start for a major national debate if we can keep the focus on these big issues and not get diverted into narrow partisan matters.

It is intended that more detailed option papers will also be issued over the next six months to develop the momentum of discussion, and to elucidate potential policy developments which could contribute towards a new package or framework for a future sector. Funding implications — and there will need to be major public investment and tax changes if we are to operate at an internationally competitive level — would be aimed at the 2003 budget and beyond, through the October Cabinet meeting of Government.

The Minister has also named an 18 person reference group reflective of major stakeholders. I have been pleased to accept membership of that Group and welcome your comments on the overview paper.

The AVCC and Group of Eight will make detailed initial responses by 24 June. At UWA, through our Senate and Academic Board, we shall also develop our own specific commentary for submission to government.

We have a real opportunity to advocate the major changes which are badly needed in our University System. And which could also have a significant and positive effect on helping us to realise the mission of UWA.

It is time for the big changes rather than the little adjustments and patchings.

We must reject the cynical line: ‘Things are impossible but let us not change anything’, in favour of a real push for creative developments as bold as the 1988 Dawkins revolution itself. Above all, we should now try to create research-led universities of world-class performance – our proud ‘tall poppies’ – such as UWA, alongside institutions with missions which specialise in technologies, regional provision, urban empowerment and equity.

We are indeed at a crossroads of opportunities for universities. (The full paper can be found at: www.dest.gov.au/crossroads)
Two of the world’s acknowledged leaders in the field of crystallography share modest rooms on the third floor of the physics building.

Professor Allan White and Dr Brian Skelton, both chemists by profession, run the University’s Crystallography Centre.

Professor White is the single most prolific contributor to the world’s crystallography database and Dr Skelton ranks world number five.

The Cambridge Crystallography Database collects the work of about 121,000 authors world-wide. Professor White tops the database’s list with 2,925 published structures. Dr Skelton’s published crystal structures number 1,978.

They are both also in the top 100 on the most highly-cited list of chemists in the world. For the past 40 years, ISI Thomson Scientific, from Denmark, has indexed citations from scientific researchers who acknowledge the work that has influenced them.

Citations provide a unique file of data that enables ISI to identify influential researchers. They are listed on the Web in areas of expertise. Under general chemistry, Dr Skelton is 72nd most highly cited researcher and Professor White 87th.

“We owe everything, for the position we are now in, to the existence of the Crystallography Centre, which was set up at UWA in the early 1970s,” Professor White said. “It was the brainchild of the late Ted Maslen and it took a particular group of individuals to make it work, including Ted and Professor Syd Hall (the current director of the centre).”

The study of crystals permeates a large number of scientific activities and the people involved with the Centre are all also involved with other areas, including Microscopy and Microanalysis, Pharmacology, Physics and Chemistry.

“We do a lot of collaborative work and we also do quite a lot of work for other universities which don’t have facilities like ours,” Professor White said.

He said the science of crystallography could be found in diverse areas from the design of a Rolls-Royce turbine to the sequencing of genomes.

“I wouldn’t even underestimate the placebo effect of crystals hanging in your window!” he grinned.

While crystallography is one of the older areas of science, it didn’t take off until after the second world war. Professor White has worked in crystallography since the early days of what he calls the modern era. Dr Skelton has worked with crystals since the 1960s.

“Computers had an enormous impact on crystallography,” Dr Skelton said. “Twenty-five years ago, the crystallography centre used 90 per cent of the University’s computer capacity.”

They said that computers complemented enormous developments in power of instrumentation, which together changed the face of crystallography.

“At the moment, we have a crystal of platinum in the defractometer. Thirty years ago, we did the measurements on a film and it took 24 hours to expose the film. The system had about a ten per cent margin of error. Then you practically went blind measuring the intensities,” Professor White said.

Now the same measurements can be taken and the data read perfectly in just 13 seconds.
Chairman safely farewelled

Professor Yianni Attikiouzel leaves UWA a safer and healthier place than when he came here 26 years ago.

The highly respected Professor of Electrical and Electronic Engineering is taking up the position of Executive Dean of Science and Engineering at Murdoch University. He was farewelled by the member of the University Safety Committee, which he chaired since 1997.

At his farewell, Professor Alan Robson said the past few years had been very successful in the development for occupational health and safety at UWA and that Professor Attikiouzel had shown ‘enormous leadership’.

The annual University safety awards were introduced in 1999 under his chairmanship. The following year, a total of 17 policies, procedure or guidelines were produced or revised and a new Campus Emergency Management Plan was prepared. His term also saw a review of UWA Safety and Health policy and a substantial increase in safety-related training, from 500 people in 1999 to 900 in 2000.

Last year, the University was awarded a Silver Certificate of Achievement from the State Government, under the WA WorkSafe Plan.

“Our image and our position, in terms of occupational health and safety, have risen substantially,” Professor Robson said. “Yianni was a fair, firm and very persistent chair of the Safety Committee, the veritable model chairman!”

Professor Attikiouzel said the Safety Committee was the easiest committee he had chaired in more than 20 years at UWA and he paid tribute to the efficiency of the Manager of the Safety and Health Office, Mike Rafferty.

“It has always been a pleasure to work with you and I look forward to hearing that the University has won WorkSafe’s Gold Certificate next year,” he said.

Young musicians get a sporting chance

“We are also taping the group woodwind and string classes and making the videos available to the students, so a large proportion of the instrumental students will be participating in this research at some stage,” Dr Wijsman said.

She started experimenting with video last year but found she needed a much faster computer to be able to exploit the use of digital video technology. With the support of the School of Music and a grant from the Deputy Vice-Chancellor, she was able to upgrade her computer equipment and acquire SiliconCoach to begin a pilot project.

“Then I wrote an application for a CATL grant (Centre for the Advancement of Teaching and Learning) to get additional equipment so my colleagues could also take part and we could expand the project across different instrumental areas of the School of Music.

“In a nutshell, I want to enhance the students’ awareness and accelerate their learning. I think we’re succeeding.”
The death of a beloved husband led to the biggest private bequest to UWA since that of the Hackett family founded the University.

The Raine Foundation has poured $19 million into medical research since Mary Raine left the bulk of her estate to UWA in 1960 for the establishment of a medical research foundation.

Her property, valued at one million pounds at the time of her death, was one of the largest private bequests ever made to an Australian university.

Her biographer, Meg Sangster, a former employee and close friend, said that Mrs Raine believed her husband Joe’s death from the aftermath of a severe stroke would not have happened if medical expertise in the treatment of stroke and heart disease had been more advanced.

This conviction was the driving force in her decision to leave most of her estate to UWA for medical research.

Mrs Raine made her fortune by buying and selling real estate and running hotels but Mrs Sangster’s book points out what a highly moral person she was — disapproving of drunkenness and asking for proof of marriage from couples who wanted a room for a night.

Published by Meg Sangster with support from the Raine Foundation, The Mary Raine Story: From Putney to Perth is an easy read, full of colourful characters and heart-warming stories.

The final chapter, on the Raine Foundation, was written by the Foundation’s executive officer Lyn Ellis and documents the research undertaken in Mary Raine’s name over the past 30 years.

The Mary Raine Story is available from the Raine Foundation on 9386 9880 for $17.50.

The Raine Foundation has committed $1.2 million to medical research in 2002.

In awarding six priming grants, to get new research off the ground, the Raine Committee acknowledged the outstanding research being undertaken in the Faculty of Medicine and Dentistry.

A total of just over $650,000 over two years was awarded to: Professor Marcus Atlas (surgery); Associate Professor Christobel Saunders (surgery); Dr Allison McKendrick (psychology); Dr Grant Waterer (medicine); Dr Kathy Sanders (anatomy and human biology); and Dr John Burnett (medicine).

The Foundation also continues its support this year of undergraduate research, with the award of three Raine Bachelor of Medical Science scholarships.

They have been awarded to three young men, Glen Lo, Te-yu Hung and Hsien Chan, to undertake a research project each in working towards their Bachelor of Medical Science.

For the second year, the Foundation is offering a prize, the Raine Research Prize, to be presented during Medical Research Week in June.

It is a $5,000 travel allowance (up from $2,000 last year) and a medallion for the best scientific paper published within five years of being awarded a doctoral degree. The prize is open to all medical scientists across the disciplines and from any university.

Applications to the Raine Foundation close on Monday May 27.
Women are taking advantage of UWA’s Re-entry Postdoctoral Fellowships to re-enter the academic workforce, after taking time out to bear and rear children. The University introduced the fellowships in 1988 and has since awarded a total of 10, one every two years until 1999 and now one each year.

Early this year, in an unusual co-incidence, Geography was supporting two re-entry fellows. Dr Lynne Milne was finishing her two-year stint and Dr Sam Saunders had just arrived from Leeds, England, to start her fellowship. At a geography seminar in April, which resembled a rite of passage, Dr Milne introduced Dr Saunders, as she presented her work to the campus community.

Dr Milne is still with geography, teaching one day a week and always on the look-out for funding to complete her research.

“These fellowships are wonderful to get you back into full-time work and to re-establish your networks, but you spend your first six months, setting up your research and your lab, then, by the end of the two years, you’ve run out of time to write up your work,” she said. “I’ve been campaigning to have the fellowship extended to three years.”

Previous re-entry fellows have included Dr Rosemary Lancaster (European languages), Dr Marie-Eve Ritz (Graduate School of Education), Dr Heidi Reinholz (Physics), Dr Judith Berman (History) and Dr Nandita Rath (Mathematics and Statistics).

The fellowship is also open to men whose family responsibilities have taken them away from their work and academics who have had their careers interrupted while caring for elderly parents or other family members.

What are we breathing?

Sam Saunders brings a new field of atmospheric research to UWA. And for her, working in Geography is also a new field.

She is a chemist who did both her undergraduate study and PhD at Leeds University. Her study, research and post-doctoral work have all been in Chemistry.

Dr Saunders and her husband visited Australia in 1990 and 91 and she worked for a short time at Melbourne University but they returned to England because of a family bereavement.

“Late in 1991, my experimental studies, which started with the measurement of the kinetics of some hydroxyl radical reactions and progressed to the development of computerised bibliographic databases for gas phase reactions, progressed naturally into the field of tropospheric chemistry modelling,” Dr Saunders said.

The following years led to collaborative contracts for modelling tropospheric ozone formation in the UK – and the birth of two daughters.

Dr Saunders and her family were keen to return to Australia, and late last year was awarded a UWA re-entry fellowship, with the joint support of Professor John Dodson (Geography) and Professor Sue Berners-Price (Chemistry).

“During my research fellowship, I propose to develop and target applications of a ‘Master Chemical Mechanism’ for use in tropospheric chemistry models, or, more simply, atmospheric modelling of photochemical smog, to investigate what we are breathing!” Dr Saunders said.

“Over the next two years, I want to develop a computer tool which will assist in legislation for the improvement of local and regional air quality and to assess the impact of changes to air quality due to changing factors like transport and industry.

“I will also be looking at similarities and differences in air quality in Europe, the UK, the US and Australia.

“The photochemical smog which is found in all these countries results in reduced visibility, respiratory problems and eye irritation. The key oxidant present in photochemical smog is ozone. I hope to be able to apply my research to investigate ozone levels and also other oxidants and determine potential components for their health impacts,” she said.
After her two daughters, the great love of Dr Lynne Milne’s life is pollen.

“It's gorgeous, wonderful, fascinating, beautiful stuff!” she says.

She has just completed her two-year UWA Re-entry Postdoctoral Fellowship in palynology (the study of pollen, spores and other microscopic plant bodies) and a third year extension for which she secured funding. She will remain at UWA on a part-time basis for the remainder of this year.

Dr Milne’s major research area is tertiary palynology and she has concentrated on the Eocene epoch (about 55 to 34 million), when flowering plants were already well developed.

“During the Eocene it was relatively warm and wet with two major periods of high sea levels, so a lot of plants and pollen were preserved. Pollen and spores are highly resistant to degradation, especially if they are buried under water or soil before they can become oxidised,” Dr Milne said.

She has been studying Eocene deposits along the old coastline of WA, on the western margin of the Nullarbor Plain. “There is such a lot we don’t know about that time in WA and I’m trying to work out ages of the deposits in different areas,” she said. Dr Milne is especially interested in unravelling the history of the unique WA flora, in particular that of the Proteaceae family (eg. Banksias and Grevilleas), linking evidence from the past with the current vegetation. During her Fellowship she also became involved in pollen studies of WA coastal wetlands.

One of the more visible areas of her work is forensic palynology, which focusses on legal evidence derived from pollen and spores, both modern and fossil.

She has been involved with the Forensic Science Unit since its inception and teaches forensic palynology.

Dr Milne’s evidence brought a suspected murderer (later convicted and imprisoned) to court in Queensland in 1997. He had murdered his victim in the town of Gympie, driven to Noosa and dumped her body in the bush. Dr Milne found pollen in his car and on his clothes that did not match the flowers from Acacia trees (wattle) in Gympie but were an exact match for the Acacia trees in Noosa. The evidence allowed the police to arrest the suspect who then confessed to the murder.

She also worked on a multiple rape case in Perth in 1998-9 when she identified pollen from a pair of shoes left at the scene of one of the crimes three years earlier. She was able to pinpoint the area from which the pollen came and the police then narrowed down the list of suspects and picked up the man, who was eventually charged and convicted.

“Pollen and spores are very useful for forensic studies because they are so small that the offender takes them away, without noticing. They are produced in vast quantities and are found on all surfaces in nature, they are highly resistant to degradation and have complex morphology usually unique to a particular plant type, in other words, they are plants fingerprints,” Dr Milne explained.

She is also working with immunologists at Princess Margaret Hospital, trying to get funding for Aerobiology, the study of pollen in the air, with a view to identifying the common airborne pollen species in Perth to aid desensitising therapy for allergy sufferers.

“The desensitising materials available now are from Europe and North America and based on their vegetation. The WA vegetation is exceptionally diverse and quite different from that of the northern hemisphere,” she said.

Dr Milne studied Geology at UWA, becoming pregnant with her first daughter during her Honours year. The family moved to Queensland where she completed a PhD part-time over many years, while bringing up her two daughters.

“It's gorgeous, wonderful, fascinating, beautiful stuff!”

Dr Lynne Milne wears highly protective gear when using hydrofluoric acid to dissolve the silica in rocks to release the preserved pollen.
Most of us are familiar with the jargon of ‘strategic partnerships’, but of more relevance today is the notion of ‘partnership strategies’ – a set of actions aimed at selectively identifying and developing what may become ‘strategic partnerships’.

The Faculty of Engineering, Computing and Mathematical Sciences is committed to enhancing its relationship with the industrial and commercial sectors through the investigation of mutually beneficial partnerships.

The Faculty demonstrated that commitment with the launch last month of its Industry Partnership Program (IPP) aimed at developing a meaningful dialogue between its researchers and representatives of commerce and industry.

Paul Higgs, the Faculty’s Executive Officer, said: “Universities exist to transfer knowledge to society and we do this in a number of ways; by graduating students, by scientific publication and conference presentations, through consulting services and other community services, and through the commercialization of our research and our collaboration with industry.”

“While we must not lose sight of the fact that the primary goal of university research is the discovery of new knowledge and the education of students, it is important to recognise that the byproducts, including patents and licensing arrangements, not only make research results available to society, but also provide additional un-tied funds for more basic research.

Mr Higgs visited Canada last year to learn from that country’s success with technology transfer.

“A key element of the Canadian strategy is partnership with industry – and they already have an outstanding record,” Mr Higgs said. “They are resolve to triple research commercialisation outputs by 2010.”

“Our Industry Partnership Program is to some extent based on elements of the Canadian approach. The first initiative is a series of workshops where representatives of specific industry sectors can talk to our researchers about the sort of practical issues they face.

“Our researchers will take the opportunity to speak to them about new and existing research work and discuss ways that we might match our research capabilities with their specific needs. At the same time, we’ll be listening to what industry has to say about the quality of graduates and our course offerings. Like all good partnerships, communication must go both ways. Our IPP and particularly the workshop series will facilitate that communication.”

Over the past 20 years, UWA’s School of Engineering has maintained close links with industry through the activities of the Engineering Foundation. The Foundation was established in 1982, to encourage collaborative research between industry and the University and to support new initiatives in engineering education.

Last year, the Engineering Foundation Council resolved to enhance its contribution to the University through a series of initiatives aimed at strengthening links with the Faculty. One such initiative has been the support of the Cooperative Education for Enterprise Development (CEED) program, including the underwriting of a part-time position to promote and scheme.

“We are particularly grateful to Mr Rob Male and the Engineering Foundation for their ongoing support in maintaining and developing industry links. We’re working very closely with them in developing our Industry Partnership Program; their experience and enthusiasm have been invaluable,” Mr Higgs said.
When is a newsletter not a newsletter?

If the seven-year itch has affected the editors of Issues of Teaching and Learning, they’re not scratching.

After producing 10 issues a year for seven years, the publication from Organisational and Staff Development Services (OSDS) is still going strong.

The publication is one of the most enduring of its type in Australia and its ‘soft’ version, on the Internet, is read by academics around the world with feedback from many institutions including Yale, Stanford, Massachusetts Institute of Technology and universities in Scandinavia.

It’s probably because it’s not a ‘newsletter’. “It doesn’t have news of what’s happening in our centre, like most of the publications from educational development units,” said Director of OSDS Professor Owen Hicks. “It’s about issues of teaching and learning – that’s why it’s called what it is!”

More than 80,000 individually-addressed copies of ITL have been distributed since its first issue in May 1995 and it has covered all the big issues in teaching and learning: outcomes-based education, problem-based learning, teaching large classes, quality of teaching, and assessment.

In a paper to be presented at the coming HERDSA conference in July, the editorial team, Professor Hicks, Kenn Martin (the two original members), Dr Allan Goody, Deborah Ingram, Dr Elizabeth Santhanam and Vivienne Blake, have analysed the outstanding success of ITL.

The team has adhered to seven guiding principles, probably the most important of which are accessibility, brevity and relevance.

The accessibility principle aims to see that what is written will actually be read. Questions such as ‘But will people read this? Is the material engaging? Is it challenging?’ are critical in the production and editing of ITL’s copy.

Accessibility almost necessitates brevity.

“Academics are busy people. They may spend time reading lengthy research papers in their disciplines but are unlikely to regularly digest similar documents on teaching and learning,” says their report. “ITL has never gone longer than four A4 sides.

“Relevance drives us to ask what is likely to be current and useful to our readers, first and foremost readers from UWA.”

Professor Hicks said that one of ITL’s successes was that it regularly drew together the OSDS staff. “We stay in touch with and review each other’s work,” he said.

There are no individual bylines in ITL. Articles are written by individuals but collectively edited. Topics for the 10 issues each year are decided at the beginning of the year and the committee meets each fortnight to brainstorm, share out assignments, then edit them together.

“So few academics can easily access information on teaching and learning. Our idea is to give them small bites of that information regularly,” Professor Hicks said.

It appears to be a successful recipe. In a survey sent out to readers last year, nearly half of the respondents said they always read ITL and 80 per cent said they often or always read it. Nearly 35 per cent said they used information from ITL to help them reflect on their teaching always or often and 50 per cent said they sometimes did.

Almost 70 per cent of respondents saw themes of current significance being selected for each edition.
Local invention hot in Canberra

The inventors: Ian Kreplins and Michael Brophy with their latest accolade, the Ericsson Innovation Award

Marketing lecturer Michael Brophy recently accepted an Ericsson National Innovation award in Canberra on behalf of his company, Hotbutt Technologies Limited.

Hotbutt won the Partnerships/Implementation category and Mr Brophy was presented with a trophy and cheque at a dinner for 650 guests at Parliament House.

Mr Brophy and his business partner Ian Kreplins were recognised for their company's contribution to the rural sector. Their unique low-voltage pipe welder uses butt fusion technology for joining polyethylene pipe. Their first Hotbutt welder was developed for field use, powered by jumper cables from a vehicle battery.

Its invention was inspired by the constant need to join, check and replace reticulation pipe in the fledgling vineyards on Mr Brophy's small Brookton property.

While lecturing part-time in UWA's Graduate School of Management, working on his PhD and spending his weekends tending the vines at Brookton, Mr Brophy was able to put his marketing experience to use to let the world know about his invention.

In the three years since its creation, the Hotbutt welder has saved Australian farmers around $1 million. Export destinations include Canada, Israel, USA, New Zealand and South Africa.

Hotbutt's past awards include WA Farm Inventor of the Year, SGIO Most Innovative Small Business Award, Hayes Petroleum Innovative Horticulture Award, NSW Ministers for Agriculture, Land and Water Conservation Innovative Horticulture Award and The Land and Graincorp National Farm Inventor of the Year (third place).

Mr Brophy, Director of Hotbutt Technologies Ltd, commended Ericsson for its support. "It is gratifying to be recognised ahead of significant finalists including Qantas. The next step is for investors to get behind Australian innovators and support patented Australian technologies in the start-up stage. It is only with their support that home-grown creativity can be converted to international competitive advantage."

BIG BROTHER
Prosh-style

With nearly two million Australians choosing to watch Big Brother on television, the format seemed like a sure-fire way to promote Prosh this year.

Eleven undergraduate students lived in The House, actually camping out under a few tarpaulins on the Oak Lawn, for three and half days, eating, sleeping, studying and (almost) going about their usual routines in full view of hundreds of students.

It was all in the name of Prosh, to promote it among the students and gather support for their annual charity street appeal and day of madness on April 17.

The students were only allowed to leave The House for classes. One of their mothers cooked food for them, they were sponsored by Red Bull to the tune of two cartons of the caffeine-fired soft drink, and they listened to music, watched TV and kept drinks cold in a bar fridge with the aid of hundreds of meters of electrical extension cords.

Pip, a Jack Russell, kept them company sometimes and at least one night they were kept busy trying to keep the rain out.

But their pains paid off. The Prosh paper, The Guest Afghanistanian, was sold out at intersections near the campus before 8.30am on Prosh day. Female students painted entirely red and clad in bikinis made of newspaper were some of the more startlingly costumed paper sellers.

A week after the event, their fund-raising tally stood at a hugely successful $89,000, with some donations and pledges still to come in and be counted.
Introducing potential students ... rewarding new ones

New and prospective students are getting special treatment from the Faculty of Arts, Humanities and Social Sciences.

Dean Professor Anne Pauwels recently presented six first year students with scholarships, awarded on the basis of demonstrated academic merit, leadership, motivation and involvement in community or co-curricular activities while at school.

Two scholarships of $2,000 each went to students from targeted metropolitan areas, to encourage students from suburbs under-represented at UWA.

A rural scholarship of $2,000 was also awarded to provide extra incentive to students from outside the metropolitan area.

A further three awards of $1000 each went to students on the basis of academic excellence and leadership potential.

"UWA promotes excellence at all levels. These scholarships recognise and reward excellence. Our graduates will be the leaders of the future and we want to give them the best possible start to their University studies," Professor Pauwels said.

Meanwhile, Year 11 students from nine Perth high schools are taking part in SmARTS 2002, an innovative program where, over seven months, they will meet, discuss and develop ideas both on and off campus, and work towards presenting a final project in September.

They have already attended the first of four on-campus tutorials in the faculty. They will also take part in four online tutorials during the year.

"SmARTS is designed to extend and enrich participants’ study in the humanities, social sciences and beyond, as well as enhancing key skills in critical thinking and research," Professor Pauwels said.

The program serves as a friendly, closely supervised experience for secondary students approaching university level.

The students will research and present their work on topics including "Aussie, Aussie, Aussie ..." Australian national identity: an historical/cultural analysis in literature and popular media; Home and Away: a historical analysis of the representation of Asia in literature and popular media; Playing the Game: gender identity and performance in contemporary culture; and Clones, Cyborgs, Genomes: when science meets culture.

C A M P U S  s e c r e t s

Need a quiet spot for some contemplation in the middle of the day? This time of year, the secluded little courtyard on the north-west corner of the Arts building is a thing of beauty, smothered in glowing autumn leaves.

A wooden bench, a single tree and an Inge King sculpture, Gothic Figure, will be your only companions. Now the secret’s out, enjoy it.

If you have a secret spot on campus, a favourite feature or a little-known fact to share, please send it to us: lindy.brophy@uwa.edu.au or phone extension 2436, fax 1192.
UWA’s Office of Industry and Innovation is now just over a year old. Our first year has been marked by numerous successes as we have laid a planning framework for 2002 and beyond. But we’re under no illusions of the considerable challenges ahead.

The Office of Industry and Innovation is charged with facilitating the commercialisation of UWA’s intellectual property. We work closely with both Legal Services and Research Services. We’ve identified a number of key areas of opportunity where the University can create ‘wealth’. They are:

- licensing deals of UWA technology with external parties;
- forming spin-off companies embodying UWA intellectual property; and,
- developing large research contracts with industry partners based on UWA intellectual property.

In this regard, we use the term ‘wealth creation’ in its broadest context – not just bringing in research dollars for UWA. It’s about getting UWA discovery and inventions out into the community for the public good, creating jobs from UWA start-up companies, and increasing the prestige of the university’s research record through knowledge of its inventions.

In our first year, four significant licensing deals have been initiated, and two spin-off companies launched. Interestingly, the licences were with US, French and German companies – none in Australia. But that’s likely to change as the Federal Government increases its emphasis on early-stage innovation and commercialisation.

The successful fund managers of the Commonwealth’s Pre-seed Fund are to be announced shortly. This will provide up to $100 million to seed early-stage ventures over the next few years and an expected explosion in the number of university start-ups.

The Office of Industry and Innovation is well placed to help UWA researchers to be part of this growth if they have bona-fide commercially viable projects. We are setting up good links with pre-seed fund managers and we plan to launch an internal UWA sponsored fund to help ‘kick start’ commercial projects later this year.

We operate in a challenging area bridging university ‘inventions’ with the commercial world. This is difficult in most cases, as the risk/reward equations are very ill defined.

We are confident that we can develop a very effective commercialisation arm within UWA. But we acknowledge that it can’t happen without a strong rapport with researchers. In that regard, we believe the key to success is to work very closely with researchers and inventors whose technical strengths interlock with the commercial acumen of our office. It is the people on both sides of that equation that make the deals work.

The staff in the Office of Industry and Innovation have an empathy with, and understanding of, researchers and the research process. They also have technical backgrounds in the fields and projects on which they work, along with commercial savvy and good negotiating skills. Above all, they are persistent and are undeterred by knock-backs. The team includes:

Andrew Beveridge, Project Manager for the Physical Sciences, who joined OII last year and has a strong background in product innovation, technology transfer and commercialisation of intellectual property. Andrew has an honours degree in electrical engineering from the University of Birmingham and has worked for various defence sector companies as well as in the commercial arm of the University of Glamorgan. He also has local experience working with the Department of Industry and Technology as a consultant. Andrew is currently very active negotiating a $5.5 million capital raising for a UWA spin-off company.

Simon Handford is the newly appointed Project Manager for Biotechnology and Life Sciences, and has a biological science degree from the University of Plymouth. Simon has worked in research microbiology (Zeneca Agrochemicals, UK), contract manufacturing of pharmaceutical and healthcare products (Faulding, Adelaide), and project management and business development of clinical trials for Scottish-based company Quintiles.

Jo Schmalfuss, as Administrative Assistant, completes the team. Jo has had experience as a personal assistant to various General Managers and Managing Directors in eastern Australia.

The OII website can be found at: http://www.oii.uwa.edu.au/
Raising researchers

The fastest-growing staff group at UWA is its researchers. Traditionally on short-term contracts, research-only staff have not often taken advantage of staff development programs.

With the growing numbers and the fact that many contracts are ‘rolled over’, Organisational and Staff Development Services (OSDS) felt it was time to offer a special program, designed specifically for this group.

Jacquie Adams is co-ordinating Raising Researchers, staff development for research staff, which aims to address their professional career development.

The inaugural program was established in response to a survey of research-only staff in 2000. It is a one-year staff development program for 30 staff who want to develop their professional identities, need space to reflect on and develop career directions, would like to acquire additional skills and might like a mentor along the way.

It will be run on similar lines to the Leadership Development for Women program with a core workshop, skills workshops throughout the year, information sessions and a mentoring network.

The second part of the program is a series of workshops and seminars available to all research staff, including sessions on keynote speaking, leading research teams, project management, understanding intellectual property and creating lively conference presentations.

Raising awareness among research staff of the current Centre for Staff Development courses is the third part of the program.

“A lot of research staff are off campus, especially at the hospitals, and we want them to feel part of the university,” Jacquie Adams said.

For details on Raising Researchers, go to www.csd.uwa.edu.au/programme/ or contact Jacquie Adams on 9380 1502 or jadams@admin.uwa.edu.au
Monday 6 May
ASTHMA AND ALLERGY RESEARCH INSTITUTE SEMINAR
‘Protease activated receptors (PARs) allergy and asthma’, Dr Nithi (Asok) Asokanandan, Microbiology, 12.30 pm to 1.30pm (lunch provided from 12noon). Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

Tuesday 7 May
PUBLIC HEALTH SEMINAR
‘Measuring the physical environment for physical activity’, Terri Pikora, Public Health; ‘How many women had their uterus removed in WA in the last 20 years, why and how?’, Annabel Bolck, Centre for Health Services Research. 11am, Room 2.63, Social Sciences Building.

Wednesday 8 May
FRIENDS OF THE UWA LIBRARY TALK
‘The globalisation of English: promoting (mis)understanding across cultures’, Prof Ann Pauwels, Dean of the Faculty of Arts. 7.30 for 8pm, Library Training Room, Reid Library.

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
‘Climate variability: Influence on hydrodynamics, pathways of nutrient supply and ecosystem function’, Prof Sally MacIntyre, Marine Science Institute and Institute for Computational Earth System Science, University of California. 4pm, Blakers Lecture Theatre, Maths Building.

Thursday 9 May
FREE LUNCHTIME CONCERT
Funk Loops, featuring the Defying Gravity Percussion Ensemble (directed by Tim White). 1.10pm, Octagon Theatre.

Wednesday 10 May
MICROBIOLOGY SEMINAR
‘HPV and cancer in WA’, Brian Brestovac, PathCentre. 9am, Seminar Room 1.1, First Floor, L Block, QEIMC.

CLINICAL RESEARCH IN NEUROPSYCHIATRY TALK
‘Molecular risk factors in Alzheimer’s disease’, A/Prof Ralph Martins, Psychiatry and Behavioural Science. 3.30pm, Seminar Room 3, Graylands Hospital.

POLITICAL SCIENCE SEMINAR
‘The rise, fall and possible resurrection of the Canadian Senate’, Prof Ted Morton, University of Calgary. 11am, Room 2.63, Social Sciences Building.

Tuesday 14 May
PUBLIC HEALTH SEMINAR
‘Long-term survival in elderly patients following carotid endarterectomy’, A/Prof Paul Norman, Surgery. 11am, Seminar Room 3, Public Health.

SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘Harnessing the benefits of soil microorganisms in farming systems’, Dr Margaret Roper, CSIRO, 4pm, Agriculture Lecture Theatre.

Wednesday 15 May
PERTH MEDIEVAL AND RENAISSANCE GROUP QUIZ NIGHT
Quiz Night at University House. Questions start at 7.30pm, tables of 6. Bookings to Charkes Acland on 9423 9428.

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
‘Scaling subsurface flow: from atom to aquifer’, Dr David Reynolds, CWR. 4pm, Blakers Lecture Theatre, Maths Building.

Thursday 16 May
FREE LUNCHTIME CONCERT
Memories, featuring Matthew Styles (saxophone) and Adam Pinto (piano). 1.10pm, Octagon Theatre.

Friday 17 May
ASIAN STUDIES SEMINAR
‘Songho, state and schooling in Burma’, Nick Cheeseman. 1 to 2.30pm, G.25 Seminar Room, Ground Floor, Social Sciences Building.

CLIMA SEMINAR
‘Introggression of pea weevil resistance into cultivar field pea: Methods of detection’, Oonagh Byrne; ‘Responses of chickpea genotypes to Helicoverpa punctiger’, Krishna Mann. 4pm, CLIMA Seminar Room.

MICROBIOLOGY SEMINAR
‘Septis in fruit flies and other model organisms’, Dr Steve Webb, Medicine. 9am, Seminar Room 1.1, First Floor, L Block, QEIMC.

CLINICAL RESEARCH IN NEUROPSYCHIATRY TALK
‘Prevention of psychiatric disorders in older adults: The impossible dream?’, Dr Nicola Lautenschlager. 3.30pm, Seminar Room 3, Graylands Hospital.

Saturday 25 May
CONCERT
Seasons by Haydn performed by the UWA Choral Society, Perth Oratorio Choir and orchestra. 7.30pm, Winthrop Hall. Tickets: $28 (full) and $25 (con.), available from the Octagon Theatre on 9380 2440 or at the door.

Monday 20 May
ASTHMA AND ALLERGY RESEARCH INSTITUTE SEMINAR
‘Asthma in childhood twins’, Nick de Klerk, Biostatistician, TVW Telethon Institute for Child Health Research. 12.30pm to 1.30pm (lunch provided from 12 noon). Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

Tuesday 21 May
GENOMICS, SOCIETY AND HUMAN HEALTH 2002 PROGRAM LECTURE
‘Insights into ion channels: Structural studies of pore-forming protein toxins’, Prof Michael W. Parker, Associate Director and NHMRC Senior Principal Research Fellow, The Biota Structural Biology Laboratory, St. Vincent’s Institute of Medical Research, Melbourne. 1pm, Simmonds Lecture Theatre.

GENOMICS, SOCIETY AND HUMAN HEALTH 2002 PROGRAM LECTURE
‘The structure of genes and proteins in society by Professor Michael W. Parker, Associate Director and NHMRC Senior Principal Research Fellow, The Biota Structural Biology Laboratory, St. Vincent’s Institute of Medical Research, Melbourne. 7pm, Geography Lecture Theatre 1.

HUMAN MOVEMENT AND EXERCISE SCIENCE PRESENTATION
‘Dr Deborah Dewey, R. K. Gray Fellow. 1 to 2pm, Lecture Theatre, HMES.

Tuesday 21 May
PERTH MEDIEVAL AND RENAISSANCE GROUP TALK
‘Medical treatment in Early Modern England’, Deborah Williams, Law/Arts. 7.30pm, Postgraduate Lounge, Hackett Hall.

Friday 24 May
CLINICAL RESEARCH IN NEUROPSYCHIATRY TALK
‘How much technology do we need to improve the mental health of older adults?’, Prof Osvaldo Almeida, Psychiatry and Behavioural Science. 3.30pm, Seminar Room 2, Graylands Hospital.

ADVANCE NOTICE

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FRIENDS OF THE UWA LIBRARY TALK
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CATLyst wins Fay Gale Fellowship

As one of its key priorities, UWA continually seeks to improve its practice of flexible teaching and learning including the incorporation of learning technologies into teaching and learning while maintaining the valued on-campus experience for its students.

The Faculty of Life and Physical Sciences CATLyst, Dr Jan Dook has recently been awarded a Fay Gale Fellowship to investigate how some of the major research-based universities in Britain are tackling this challenge and to determine if there are lessons that can be learned for UWA.

While Oxford University will be her base, she will also investigate other initiatives such as the LTSN (Learning and Teaching Support Network).

The Faculty CATLyst Scheme consists of local appointees (CATLysts) within the faculties who have a broad responsibility for promoting teaching and learning within their respective faculty and within the broader UWA community. The scheme has proven to be a valuable cross-institutional network to support flexible teaching and learning and develop a pool of expertise.

CENTRE FOR STAFF DEVELOPMENT

What’s on next

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

- Copyright: Your Computer, the Internet and Multi-Media
- Staff Development Review
- The Role of the Committee Secretary
- General Staff Development Review: Workshop for Supervisors
- Legal Responsibilities of Managers and Supervisors
- Introduction to Management

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BUNDLE UP YOUR BOOKS

The annual Save the Children Fund booksale is only 10 weeks away and organisers are, as usual, on the lookout for interesting contributions.

They will happily accept any books in good condition, except primary school and high school texts. Specialist magazines are also welcome, but not the weekly popular magazines. Sheet music, records, audio tapes and CD are included in the sale.

You can drop off your donations at any time because the University branch of SCF is now housed in the Park Avenue building (corner Park and Crawley avenues) and there is a large protected undercover area outside.

Book sorters are at work at the headquarters from Tuesday to Friday between 9.30am and 12.30pm. If you would like to join them, especially if you can work on Mondays, please call Rosalind Lindsay on 9381 3423.

The booksale, in the Winthrop Hall Undercroft will open at 6pm on Friday July 26 and run until noon on Wednesday July 31.
Microscopy and Microanalysis Courses: June/July

Scanning Electron Microscopy (SEM)  June 10 - 13
The course covers basic scanning electron microscopy, digital imaging and sample requirements. Users will be trained on the instruments appropriate to their needs to a basic operational standard. Please note that this course is a prerequisite for the Electron Microbeam Analysis Course and the Environmental Scanning Electron Microscopy Course. *This is nominally a two-day course but some labs may run on the June 12 – 13. Note on your application if this is a problem.

Environmental Scanning Electron Microscopy (ESEM)  June 13 - 14
The special characteristics of the ESEM will be covered with emphasis on control of temperature and pressure of the sample chamber environment. The benefits of the ESEM will be explored on a range of moist and uncoated specimens of a physical and biological nature. The new charge contrast imaging will be covered. Prerequisite: SEM Course

Electron Microprobe Analysis (EMPA)  June 17 - 19
A course in the electron microbeam analysis of bulk samples. The program covers general theory and principles of operation of energy dispersive X-ray detectors, X-ray data correction procedures and sample preparation. Basic wavelength dispersive X-ray analysis will also be covered. Practical sessions support the theory. The final session will include discussion of results, their interpretation and problems that may be encountered. Prerequisite: SEM Course

Introduction to Transmission Electron Microscopy (ITEM)  June 18 - 20
This course provides an introduction to the capabilities of TEM, and basic level practical training in the operation of a microscope. It is suitable for biological scientists, physical scientists and engineers. Please note that this course is a prerequisite for all TEM courses

TEM sample preparation for materials science (TEMSP)  June 21
This course will provide an overview of the TEM sample preparation facilities for materials science applications available within the CMM. There will be ample opportunity for attendees to discuss their specific sample preparation requirements with CMM staff.

Optical Microscopy (OM)  June 24 - 26
This course covers general principles and applications of light microscopy including bright field, phase and Nomarski interference, polarizing and fluorescence microscopy using a Zeiss Axioskop 2 with a digital camera. Basic histochemistry for high resolution light microscopy will also be included. Especially suitable for the biological/medical fields.

Analytical Electron Microscopy/Gatan Image Filter* (AEM/GIF)  June 24 – 27
The advanced analytical capabilities of the JEOL 3000F FEGTEM will be discussed. This will include small probe formation, STEM imaging, x-ray spectroscopy and mapping, and use of the Gatan Image Filter (for EFTEM and EELS). Hands-on sessions with the microscope will supplement the lectures. Prerequisite: ITEM Course

Confocal Laser Scanning Microscopy (CLSM)  June 27 - 28
The course covers the theory and practice of confocal microscopy. Students are encouraged to bring their own samples for practical sessions.

Biological Transmission Electron Microscopy (BTEM)  July 1 - 2
This course covers both theory and ‘hands on’ practical training for specimen preparation, ultramicrotomy, and TEM operation for biological applications. The final sessions will focus on interpretation of results and problem solving. Prerequisite: ITEM Course

Digital Image Manipulation & Storage (DIMS)  July 4 - 5
The course is in two parts: Part A will review the nature of a digital image; explaining the relevant terminology, the currently available facilities for printing and transferring of images and the various media for image storage (including a cost and archival comparison). Part B will introduce image manipulation software including Adobe Photoshop, NIH Image, Macromedia Freehand, and PowerPoint. The course is conducted on Macintosh computers but is platform independent and suitable for PC users.

Places are limited but all courses are open on a first-come basis. Registration Fee: $330 per course, except EMPA Course: $495 (including GST). There is no registration fee for UWA or Curtin students and staff. All registrants will be charged a $50 fee if they fail to attend without reasonable notice. Enquiries and application forms: TEL: 9380 2770 FAX: 9380 1087 WEB http://cmm.uwa.edu.au/ EMAIL: admin@cmm.uwa.edu.au

Redundant Equipment for Sale

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Bids should be accepted by Monday 8 April with departments to have first option

Departments are reminded that all University equipment available for sale must be advertised in the UWA News. 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 3618/2546 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.