



A new spin on video conferencing

UWA company sets new telecommunication standards

by Lindy Brophy

A UWA spin-off company could change the way the world experiences video-conferencing.

Cortec Systems, a spin off company from the Western Australian Telecommunications Research Institute (WATRI) has just finalised a \$6 million investment in Voice over Internet Protocol (VoIP), marking the transition from University research to product development and commercialisation.

Director of WATRI, Professor Kevin Fynn, said: "Cortec is yet another example that world leading innovative technologies can be developed locally. This outcome is an endorsement of the creation of WATRI as a joint venture between the two partner universities (Curtin and UWA)."

Despite the promises of internet technology, video conferencing has never been a satisfactory collaborative tool — until now. "The company's first product will fully automate the provision of guaranteed call quality for each individual phone call or video-conference. The innovative technology solves two of the major barriers to VoIP adoption by mass market enterprises — unreliable call quality, and the complex array of specialised skills and tools that are required to provide a reliable VoIP network.

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*The Cortec team: Chief technology officer, Dr John Siliquini, Professor Kevin Fynn and Rob Newman from Foundation Capital, one of three backers of the new company.
Inset: Telecommunications "legend", Professor Tony Cantoni*



More than 400 people attended a ceremony in Winthrop Hall to celebrate the commencement of Alan Robson as Vice-Chancellor. Chancellor Ken Michael was joined by graduate Michael Chaney (Managing Director and CEO of Wesfarmers) and Susie Byers (Guild President) in publicly congratulating Professor Robson and offering a personal perspective on the challenges and opportunities facing UWA during his term of office. Pictured are the Robson family: Suzanne, a third year Arts student, Gwen Robson (UWA Arts graduate) and Andrew (UWA Arts/Law graduate). Absent is daughter, Nicole who lives in Tasmania and is also studying Arts.

Early start produces fine results

Akshay Venkatesh wasn't even a teenager when he came to UWA to study mathematics.

He enrolled before his 13th birthday, and was only 16 by the time he'd completed a degree in pure maths with first class honours and won a Hackett Scholarship to Princeton.

The brilliant young man has continued to shine, receiving his PhD at the age of 20 and going on to work at the Massachusetts Institute of Technology where he held a CLE Moore instructorship. Dr Venkatesh has made major progress in counting and equidistribution problems in automorphic forms and number theory.

He has just been made a 2004 Clay Research Fellow, chosen for his research achievements and his potential to make significant future contributions. The Clay Mathematics Institute is a private non-profit foundation dedicated to increasing and disseminating mathematical knowledge. It aims to further the beauty, power and universality of mathematical thought.

Dr Venkatesh is one of four Clay Research Fellows whose research will be fully supported for between two and four years. The School of Mathematics and Statistics was delighted to send him the University's congratulations.



Akshay Venkatesh with fellow mathematician and Hackett scholar Michael Giudici, before they left to take up their scholarships, in 1998.

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Telecommunications spin off

"Quality of service over a network has never been assured anywhere in the world," he said. "The reason is the infrastructure being used for the real-time service, such as video conferencing, is also being used by other people to do other things and, when, for example, somebody is transferring a big data file, the system has to share its resources, which can interfere with the quality of both transmissions."

Professor Fynn said that Cortec had developed a solution to guarantee the quality of real-time network traffic so the video conference's bandwidth was not compromised.

Most of Cortec's ten employees were postdoctoral staff and students from the School of Electrical and Electronic Engineering, who did their final year project with WATRI. They are now developing the new real-time technology for release in the next nine months.

Cortec is the third spin-off company to come out of University-based telecommunications research, after QPSX in the 1980s and Atmosphere Networks in the late '90s.

Professor Fynn said the strength of telecommunications research in WA was the result of the vision and leadership provided by Professor Tony Cantoni. He had brought together the telecommunications research at UWA and Curtin by founding WATRI as a joint institute in 2002, serving as its

foundation Director. WATRI's research activities are now all in the one place, in Edward Street, on the western edge of the UWA campus.

"Wherever Tony Cantoni goes, that's the place to be. He is a legend in Australian telecommunications, both within academia and industry," Professor Fynn said.

Cortec is WATRI's third venture, with \$6 million initial funding. This comes from Perth-based Foundation Capital, Sydney-based Technology Venture Partners, and Starfish Ventures, from Melbourne. Professor Fynn said their good track record in spin off companies made it easier each time around.

"Industry creation is part of our charter. In this way, we are different from most other research groups in Australia. Many staff in WATRI have spent time working in the industry but we also have five professors who have been working together for the past eight or nine years. That remarkable stability comes from the respect for each other and the research leadership that Professor Tony Cantoni provides."

He said the group had a unique and successful mix of highly skilled academics and design engineers and those who do both. "The innovation comes from cycling ideas back and forth between theory and demonstration. This is what makes WATRI different from traditional University research groups."

Since 1985, the group has had \$120 million invested in its products from venture capital and a further \$40 million from grant money, chiefly from two CRCs. It has generated 37 PhD students and an enormous respect in the telecommunications industry.

WATRI currently has five laboratories in areas that underpin telecommunications and electronics systems: networking, electronics, signal processing, wireless systems and electromagnetic compatibility.

"Many of today's electronic products need expertise in all of these areas, but in too many universities, you will find these areas working apart from each other," Professor Fynn said.

"Here at WATRI, we thrive on strong cross-fertilisation of research across the various strands of information, communication and telecommunications research. In practical terms, this means bringing people together with various expertise and skills in a vigorous working environment."

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Lucy in the *bush* with diamonds

Finding the answer to a mine rehabilitation problem in the Kimberley marked horticulture graduate Lucy Commander as hot property.

Well before her appearance in Winthrop Hall to officially receive her degree (Bachelor of Science) with first class honours this month, Lucy was head hunted by Kings Park and offered work or the possibility of a PhD.

"I took a position as a technical officer in seed research and I'm investigating seed germination and dormancy," said Lucy, whose fourth year project last year solved a seed dormancy problem for Argyle Diamonds.

She explained: "A common small tree, which is, I think the tenth most dominant plant in the vegetation surrounding Argyle Diamond Mine, was missing from the rehabilitated mine sites. *Terminalia canescens* was in the seed mix but it rarely appeared among the rehabilitation.

"Of course, this meant that whole ecosystems could be in trouble, so I set about finding out why."

Lucy's research found that a few seedlings had germinated in sites where temporary puddles had formed during the wet season. But the new environment was not generally conducive to forming pools. Her results suggested that *Terminalia canescens*, a medium-sized tree with soft grey-green leaves, exhibited coat-imposed dormancy, which was only broken down during the wet season.

Soaking the seeds, especially when combined with first cutting off one end of the seed, was the answer for

germination of the important species.

Lucy's work, supervised by Associate Professors Julie Plummer and David Turner, won her the annual prize for the best project from the Wildflower Society.

She will be among 2,424 graduates who will receive their degrees, diplomas and certificates at seven ceremonies in Winthrop Hall this month. The list includes twin sisters Caroline and Kate Wright, who both received a Bachelor of Science (Cognitive Science) and Donald Lowe, who will receive his Master of Education at the age of nearly 82.

There were more Bachelors of Science conferred (in two ceremonies last week) than degrees in any other area. A total of 411 graduates received a BSc. This includes disciplines as diverse as biomedical science, environmental science, exercise and health science, neuroscience, psychology, animal science and landscape management.

But for degrees awarded in one area, Bachelors of Commerce are, once again, the biggest group, with 382 graduates.

Among 60 PhDs is Dr Brenda Clare, a UWA lecturer in social work. Graduate students were also presented with 104 Masters in Business Administration.

The ceremonies will also see 291 engineers, 134 lawyers and 106 medical doctors graduates, alongside 221 Bachelors of Arts and 77 Bachelors of Computer Science or Computer and Mathematical Sciences.

Lucy Commander at the site of her horticultural success: Argyle Diamond Mines





Vice-Chancellor's column

It is difficult to remember when issues of education last dominated the national political agenda to such an extent as now. And it is becoming clear that for universities the three 'Rs' of this decade will be relevance, reputation and relationships.

There is a need for greater efforts to build increased understanding of what universities are about; what they provide and what benefits they can deliver to the community at large. The current debate on the value of higher education and its importance to society's future and long-term well being is refreshing and needs to be utilised to the sector's advantage. At our university we must ensure we remain relevant to the needs of the community, business and industry, and individuals at all levels. And while many in the State appreciate the contribution The University of Western Australia makes through the development of high-quality graduates and productive research outcomes, we must never take this support for granted.

We will need to build on significant past achievements as a foundation for going forward as we work to achieve international excellence through the advancement of knowledge in all its forms.

The key question is how to utilise the strength of established relationships to both grow and to attract increased support for what we do best?

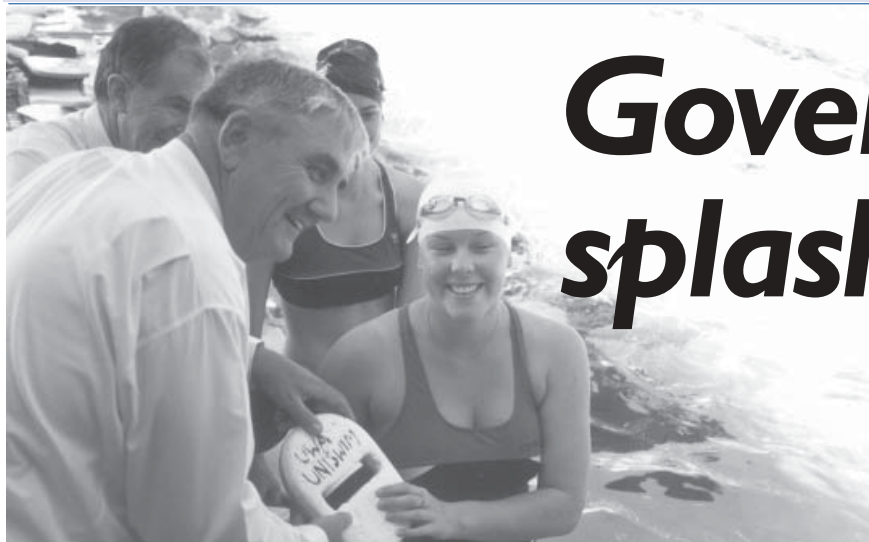
We are recognised as making a significant contribution to the nation and the State and our reputation is highly regarded. But we can do better. We can sharpen our awareness, and our attitudes and behaviours, to not only the value but also to the stewardship of these relationships.

It is not just a question of visibility (although this is important through initiatives such as the 'Universities meet Parliament' initiative instigated by the Australian Vice-Chancellor's Committee in Canberra recently). But it is about follow through and working towards shared goals with those with whom we form relationships, particularly with Governments, and particularly at a State level.

A timely reminder of the importance of 'relevance, reputation and relationships' comes from the current round of graduations. As some 2,500 graduating students leave us for lives and careers beyond our University, we should consider how our relationship with these graduates can be maintained through their involvement as alumni.

These are the leaders of the future, and our continuing relationship with them should be positive and relevant, thereby further enhancing our reputation as a university of substance.

Alan Robson, Vice Chancellor



Government splashes out

Minister Bob Kucera and Professor Brian Blanksby with Human Movement students Elise Chapman (front) and Chelsea Boyanich

More people in the community, from disabled children to elite athletes, will benefit from UWA's sport science programs with the construction of a new 33 metre pool.

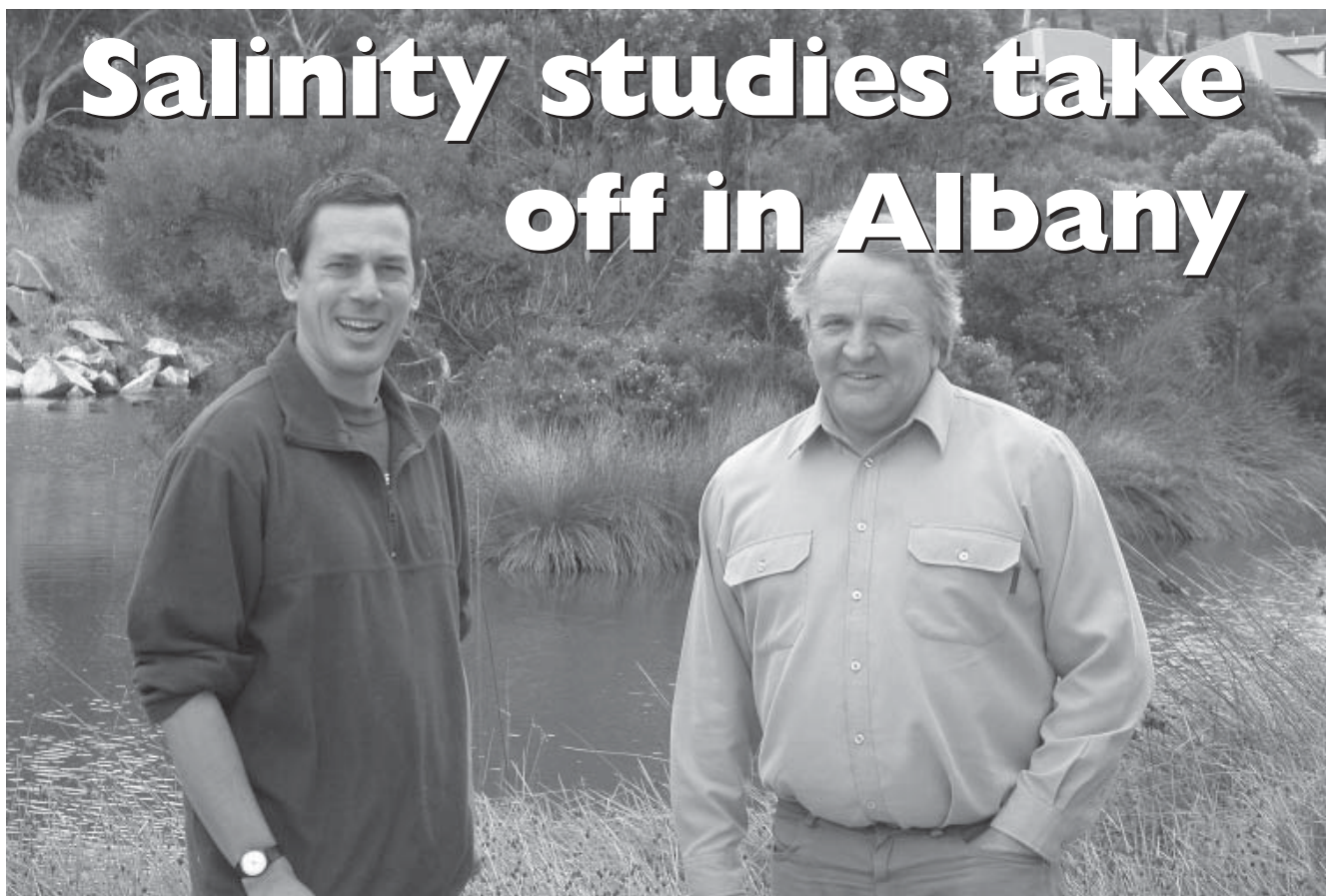
The new pool will allow the School of Human Movement and Exercise Science to increase the temperature in the current covered pool and use it more for exercise therapy for the elderly, arthritis sufferers and people with back pain, 'frozen' shoulders or osteoporosis. Young children, who lose body temperature quickly in water, will also be trained in the warmer pool.

The popular Uniswim program which currently trains 1200 children each week will be able to expand, as will the student and graduate work with dyspraxic and cerebral palsied children and those with mild autism and attention deficit disorder.

Water polo will be added to the range of aquatic activities offered to teenagers and other competitors and the over 50s programs will increase.

The Minister for Sport and Recreation, Bob Kucera, last week committed \$350,000 towards the \$1.5 million pool.

"This pool guarantees the future of sports science as well as people's rehabilitation. It also uniquely links pure science with the pure enjoyment of sport," Mr Kucera said.



Salinity studies take off in Albany

PhD student Peter Speldewinde and supervisor Professor Peter Davies have plenty of waterways around Albany to study

A chance attendance at a public lecture in Albany has set Landcare coordinator Peter Speldewinde down the path of a PhD.

The lecture, by Population Health Professor Phil Weinstein, on water quality and human health, was organised by the UWA Albany Centre. The Centre has a focus on sustainability and has set up a Sustainability Fund to raise money for post-graduate research and undergraduate studies in this area.

Peter Speldewinde, a UWA graduate, worked in wildlife research before moving from Perth to Albany three years ago and becoming a Landcare coordinator.

“When I heard Phil Weinstein talk, I knew that we were on the same wavelength, and that I’d found the topic I wanted to explore for my PhD,” he said.

As the Sustainability Fund is still in its infancy, Peter’s PhD is being funded by the CRC for Plant-based Management of Dryland Salinity and he is jointly supervised by Professor Weinstein and Professor Peter Davies, Director of Albany’s Centre of Excellence in Natural

Resource Management.

He is studying possible links between human and ecosystem health from the perspective of salinisation.

Peter is one of four PhD students based at the Centre for Excellence. A record enrolment of 51 undergraduate students at the Albany Centre, along with 40 on-line students from the Institute for Regional Development (IRD), make the city a thriving academic base.

Director of the UWA Albany Centre, Barbara Black, said the Centre had grown from just nine HECS students in its first year, 1999. Student numbers have grown every year.

Also this year, the IRD, part of the School of Earth and Geographical Sciences, relocated its teaching program to Albany, from where on-line courses are now run. There are 40 students studying postgraduate courses in regional development.

**Truly ground
breaking research**

WA’s highly competitive minerals and energy industry is always keen to support research.

The Minerals and Energy Research Institute of Western Australia (MERIWA) has awarded scholarships to two UWA postgraduate students for their work in the minerals and petroleum field.

Amy Hearman’s research, in the School of Earth and Geographical Sciences, looks at landform stability at rehabilitated sites, including a study to determine rainfall properties that trigger run-off and erosion.

PhD student Zoran Seat, working the Centre for Global Metallogeny, is studying newly-discovered nickel sulphide deposits in the Western Musgrave Block, near the WA, SA and NT borders. The previously unexamined deposits could provide an understanding of the tectonic and magmatic evolution of the Musgrave Block.

The scholarships are for \$10,000 each over two years. MERIWA Executive Officer, David Milton, said it was “important to provide prestigious scholarships to encourage and support the high achievers in the energy industry.”



in on meat



A \$30 million genomic research program has signalled a change in direction for both the sheep industry in Australia and a research group at UWA.

A group recognised for its mouse modelling of human muscular problems has been chosen to work with researchers across Australia in a program that breaks away from the usual industry-based research commissioned by Meat and Livestock Australia and Australian Wool Innovation.

Dr Jason White (*pictured left*), a research fellow in the School of Anatomy and Human Biology, and part of Professor Miranda Grounds' research group, said the five year Australia-wide program was using current genomic technologies to track down genes that are commercially useful to the sheep industry.

"The program is going right back to basic, rather than applied research, a change in strategy for the industry," he said. "And at first it seemed odd that our group, rather than people in animal biology or even from Murdoch University, was chosen for the research. But Miranda's track record in muscle biology is second to none. Whether it's looking at muscular dystrophy in humans or meat production in sheep, the muscle biology is the same."

The meat and wool partners have each put in \$15 million for three areas of research: muscle and energy utilisation; immunology of the gut and internal parasites; and a wool biology program. Joining the UWA team working in the muscle and energy utilisation program are CSIRO, Livestock Industries, the Victorian government department of Primary

Industry, and the universities of New England, Melbourne and Sydney.

Dr White is leading the project to establish, at the cellular level, the role of muscle and the connective tissue within muscles in determining the tenderness of meat. They are looking at growth factor pathways and their effect on meat quality.

The group is concentrating on a specific sheep with a mutation which causes hypertrophy, or increased growth, in its hind quarters. The mutation in Callipyge (Greek for *beautiful buttocks*) sheep was identified by Professor Noelle Cockett at Utah State University. The UWA group will visit her and experiment with the Callipyge sheep.

"We are interested in the effect of the mutation on the sheep's other genes," Dr White said. "Also interestingly, the meat from the Callipyge's hind quarters is tough, so we're not about to recommend bringing the strain into Australia. We are purely interested in the biology of the growth."

"It's a balancing act between increased growth and retaining tenderness in the muscle so the quality of meat is high." The research takes Dr White back to his roots, growing up on a farm in NSW.

The other project for which he has responsibility is the management of information between the research groups and all other associated parties. The UWA group has funding for two years but the intent is for most groups to be involved for the full five years of the project. The University's involvement was negotiated by the Office of Industry and Innovation.



Rotary representative, John Ranieri (*far right*) presents a plaque to the Unit for Research and Education in Drugs and Alcohol (*from left*): Al Professor Gary Hulse, Dr Diane Arnold-Reed, Phillip O'Neil and Dr Robert Tait



Hot research at summer school

Students (back, from left) Melisa Wong, Melisa Tanuko, Penna Tang and (front, from left) Min Kyung Sung, Tracy Vu and Elzena Salem Ibrahim with proprietor of Hot Box, Garrett Walsh

“Why don’t international students come to Hot Box?” wondered Garrett Walsh, proprietor of the Asian food take-away in Broadway.

Luckily for Garrett, one of his employees, marketing student Penna Tang, took a summer school unit in Information Management and Marketing over January and February which required her and her team to find an organisation that needed help and give them a hand.

“The idea is not necessarily to find a solution, but to find different ways of looking at the problem,” said marketing lecturer Alvin Lee. “But I’ve been running courses like this for many years at other universities and you would be surprised how often the students do come up with very good solutions.

“Their marketing training equips them with the particular skills that many small business people don’t have,” he said.

Penna and her colleagues ran focus groups of international and local students at *Hot Box* and came up with the following answers for Garrett: the food was too expensive for overseas

students; it was not always exactly the same as food they enjoyed at home; the portions were often too big; and where they ate depended on where their friends were going.

The proprietor employs all Asian staff and has decided not to change the recipes they use because they are popular with local students. But he has decided to open at lunchtime instead of just at night, to reduce the size of the meals and to reduce the prices for those smaller meals.

“The students have done a fantastic job,” he said.

More than 50 students chose to enrol for the summer school marketing unit, mostly to ease their load during semester. Alvin Lee said he liked to have a community focus in the course, so the students were doing something for others as well as themselves.

“Some of the students helped out Red Cross and Surf Lifesaving. Others worked with parking services and the study abroad office on campus,” he said. “In the past, some of my summer school students have ended up being employed by the organisations they have helped – so it’s almost like an apprenticeship.”

Rotary right behind research

A study on the impact of alcohol consumption on people with mental health disorders has been funded by the Australian Rotary Health Research Fund (ARHRF).

The latest work by the Unit for Research and Education in Drugs and Alcohol, in the School of Psychiatry and Clinical Neurosciences, is looking at the impact of different levels of alcohol consumption, including those that would be considered ‘safe’ in the general community.

Dr Robert Tait says that excessive alcohol consumption is known to increase the severity of mental health problems among people with severe disorders (eg schizophrenia), and that their data also suggests that even low levels of consumption can have negative outcomes. But the relationship between alcohol consumption and the health of those with less severe mental health problems is not yet clear.

This is the sixth research grant for the school from the Rotary Health Fund, since 1999. It is one of the biggest sources of mental health research funds in Australia. ARHRF recently presented the School with a plaque to mark its significant and ongoing contribution.

Flourishing in old age



Dr Felicia Huppert and her host at UWA, Professor Leon Flicker, say they have an “enlightened self interest” in the study of ageing

Considering our ageing population, it was not surprising that Dr Felicia Huppert’s lecture, *Positive Ageing*, packed out the Social Sciences lecture theatre recently.

Dr Huppert is a Raine Visiting Professor, a former Australian who has lived in Cambridge for the past 35 years, where she is a Reader in Psychology in the Department of Psychiatry.

She is a neuropsychologist and has been working with Professor Leon Flicker, the head of the geriatric medicine department of the School of Medicine and Pharmacology, on his continuing project of trying to reduce cognitive impairment in old age.

Professor Flicker and Dr Huppert joked that their interest in geriatric medicine came of “enlightened self interest”. But Dr Huppert’s involvement actually started with research into memory and how it worked.

“I started working with elderly people because they are the ones whose memories are the most interesting,” Dr Huppert said. “I didn’t set out to work with elderly people, in fact I was quite reluctant at first, but once I did, I became hooked. They are marvellous people, and all with a story to tell.”

But while most research funding goes to study problems of ageing, Dr Huppert found she wanted to study the flourishing elderly population, to find out why some people do so well in old age.

“It’s much harder to get the funding for positive studies like this, but it’s well worth it. If we can find out what makes some people do so well in old age, we can bring about a shift in the whole population,” she said.

She told the audience that she would not pretend that

physical and mental abilities did not decline as people got older. But she asked how much of that decline we should accept as inevitable.

Dr Huppert quoted several international studies that proved that physical and mental exercise and social interaction could stall these declines.

“Studies of large numbers of people over many years have found that people who are more active physically, mentally and socially reduce the risk of cognitive impairment or dementia for five or more years.

“The incidence of dementia in elderly people doubles every five years. If we can slow the onset by five years, then we can halve the incidence of dementia,” she said.

Physiological decline (especially in hearing and eyesight) need not be perceived as a disability, if society would plan and design public facilities to accommodate such declines. “If we have good lighting in our homes and public places, and good acoustics that produce less background noise, and well-designed facilities like automatic teller machines, elderly people would not be disadvantaged, and they would have a more positive attitude to life.

“This sort of design theory makes sense for everybody, not just the elderly,” Dr Huppert said.

She said it was never too late to change from a sedentary lifestyle to a more active one and even the smallest changes could have positive benefits to elderly people.

But, above all, a positive attitude, both from within and from society in general, towards ageing is the best weapon against physical and mental decline.

“Positive attitudes reduce stress hormones, which, at high levels, are toxic and actually kill cells,” she said.

Dawson on his Todd

It's a happy academic who can combine his passion for a pastime with a career in research.

Associate Professor Brian Dawson has loved football all his life and, in his work in the School of Human Movement and Exercise Science, he is often investigating football injuries and the best methods of treating and preventing them, and specific training regimes for footballers. His research into these areas is funded by the national and state football leagues.

He has been involved for many years as an assistant coach, fitness adviser and selector at state and national level. Over the years, A/Prof Dawson has had close relationships with many of the heroes of the sport and, this month, his biography of one of them, John Todd, was launched.

John Todd: Six Decades of Footy tells the story of his long career in the game, from the 1950s to his retirement from coaching in 2002. During four of those six decades, Brian Dawson was by John Todd's side.

"In 1977, I graduated from the colts team and played for Swan Districts league team, under John Todd," A/Professor Dawson said. "When my playing career ended, I stayed with John as a fitness adviser, assistant coach and team selector.

"I went with him from Swan Districts to the West Coast Eagles, when John coached the Eagles to their first final in 1988. We stayed together at the Eagles, then I returned with John to Swan Districts when he finished his coaching career a couple of years ago."

A/Professor Dawson said John Todd was the longest-serving football coach in Western Australia and he deserved to be recognised with a record of his sporting life.

The book was launched by the Premier, Dr Geoff Gallop, Eagles coach John Worsfold and WA Football Commission Chair, Neale Fong, in the company of many other greats of the sport, including Jack Sheedy, Ross Glendinning, Graham Moss, Polly Farmer, Barry Cable and Steve Malaxos.

John Todd, at the age of 17, was the youngest Sandover medal winner, and the youngest player to represent the State; at the age of 20, he became the youngest senior coach in WA; and, in 2002, bowed out as WA's oldest football coach.

As a young player, he overcame a severe knee injury, the rupture of his anterior cruciate ligament, for which surgical repair (as now practised) was not then available. Yet he returned to play another 100 games of league football and represented the state on several occasions, including All Australian Honours in 1961. A/Professor Dawson and his colleagues have spent years in researching this type of injury: why it happens, how to prevent it happening and how best to rehabilitate the knee afterwards.

John Todd: Six Decades of Footy is published by Cambridge Publishing and available from most bookstores, newsagents and *The West Australian*.



John Todd and Brian Dawson, side-by-side in their last team photo: coach and assistant coach of Swan Districts, 2002

French

colonial

influence



New staff Dr Bonnie Thomas and Dr Srilata Ravi "French is more than my profession: it is my life," said Dr Ravi

Mention the French and most people immediately think of Parisian street cafés or the vineyards of Provence.

But it is the influence of the French outside their own country that has had the biggest impact on the two newest members of staff in the School of Humanities' French Studies.

Dr Srilata Ravi is interested in French colonial history and post colonial theory, and Dr Bonnie Thomas specialises in French Caribbean literature.

Dr Ravi comes to UWA from Madras, via Singapore, where she taught French language and literature and European studies. Coming from a multi-lingual background, she speaks Bengali, Hindi and Tamil, as well as English and French, and has a special interest in Euro-Asian encounters in colonial and post-colonial cultures.

"Being multi-lingual is more than being able to speak many languages; it's like being able to live in many different languages. My family has no French connections, but, as a student in India, I felt an affinity with the language and the culture. I like to think that perhaps I was French in another life!" she said.

Dr Thomas comes from closer to home. She did a joint PhD in French and history on gender identity in contemporary French Caribbean literature, under the supervision of Dr Beverley Noakes, Associate Professor Robert Stuart, and Dr Helene Jaccomard.

"As part of my research I went to Martinique, Guadeloupe and Paris to interview four of the writers I was studying for my thesis – a wonderful experience," said Dr Thomas. After a year teaching at Macquarie University, she returned to UWA, where she is keen to develop courses in French Caribbean literature.

"When Beverley Noakes retired in 2002, she left a wonderful legacy in that area, which I hope to continue," she said.

The arrival of Dr Thomas and Dr Ravi has doubled the tenured French teaching staff.

Urban home for rural school

The Head of the School of Primary, Aboriginal and Rural Health Care (SPARHC) used to hold meetings in the coffee shops of the campus.

"When I came to Perth, I was an itinerant!" laughed Professor Campbell Murdoch, who is usually based in Kalgoorlie. But now he has new offices, situated in what was the Medical library.

With the development of the new Medical and Dental Library at QEII, the old premises have been turned into tutorial rooms for first and second year medical students and urban centre offices for the Rural Clinical School. They were officially opened by the Vice-Chancellor, Professor Alan Robson last month.



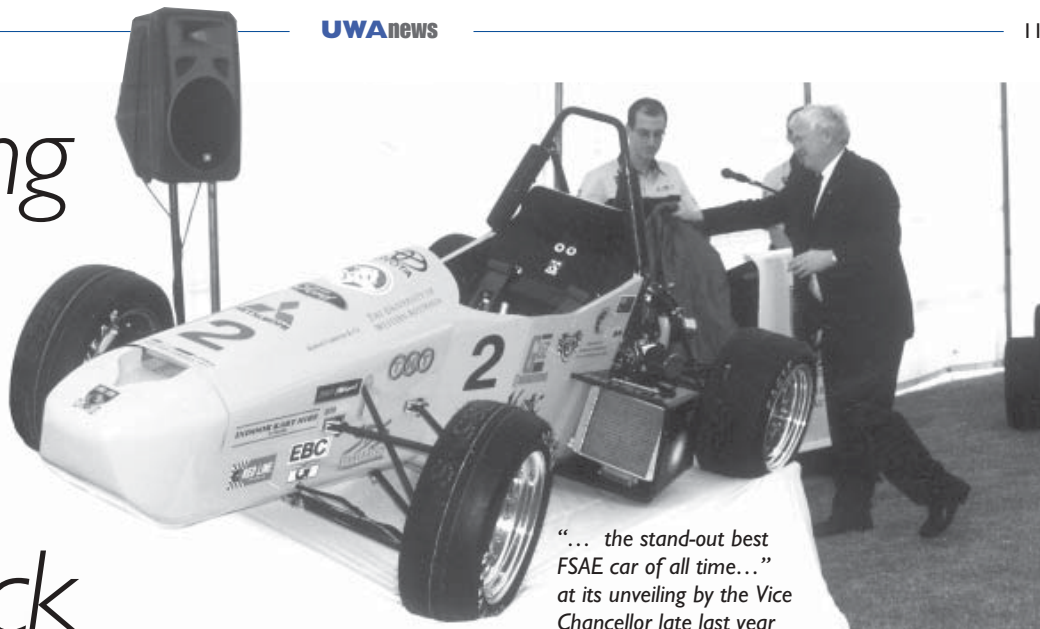
School Manager Rosemary Ingham and Head of School Professor Campbell Murdoch celebrate the new premises for SPARHC

"This gives us a focus in Perth, as well as a home for our lecturer in education, Vanessa Lockyer-Stevens, and our senior research fellow, Dr Harriet Denz-Penhey," he said. "But most importantly, people know where to find us now. I've had lots of contact with other staff in the Faculty since we moved into our new home."

Professor Murdoch supervises senior medical students who choose to do their fifth year in the country. Currently, there are 29 students working out of Kalgoorlie, Geraldton, Broome and Port Hedland. His challenge is to run an academic school in a rural area for these students, not just provide a rural experience.

The Rural Clinical School started in 2002 with just seven students in its first cohort.

Winning design on the US track



*"... the stand-out best FSAE car of all time..."
at its unveiling by the Vice Chancellor late last year*

UWA Motorsport's racing car is off to Detroit, to compete for the first time in international racing.

The racing cars designed and built for Formula SAE (Society for Automotive Engineers) competition, have become the hallmark for final year engineering students. They have produced a car each year since 2000. They have always been successful but this is the first time a team has been able to take a car to the US.

Last year's car won Design and Innovation awards at the Australian competition in Adelaide and team design supervisor, Lynn Kirkham, won an award for the best faculty adviser. Mr Kirkham and Dr Angus Tavner have been involved with UWA Motorsport since the competition took off in 2000.

"Our latest car was very radical in design and manufacture," Mr Kirkham said. "We knew we had bitten off quite a lot, but it

was a step we had to take, and it paid off. Since Adelaide, we have been concentrating on improving our track performance."

He said the Formula SAE (Australia) technical adviser judged UWA's 2003 car "the stand-out best FSAE car of all time."

It has a carbon-fibre skinned monocoque chassis, using a materials technology developed by one of the students, Mike Haywood, which is an advance on that currently used in automotive and aerospace applications.

"Due to the unique construction method, the chassis exhibited similar mechanical properties to Formula One applications, but at a much lower production cost," Mr Kirkham said.

Composite materials suppliers have since shown an interest in the processes and are prepared to support continued research.

While the 2003 car competes in the US, engineering students have already started work on the 2004 entry.

Faster and lighter wins the race



Scott Cranston, Dane Lance, Matt Philson and Acacia Milroy beat engineering students from across Australia with this contraption

UWA engineering students have won the national Warman Student Design and Build Competition— for the second consecutive year.

Beating teams from universities throughout both Australia and New Zealand achieved their final goal, but the four successful students had to beat almost 40 teams from UWA just to make it to the national finals.

Acacia Milroy, Matt Philson, Dane Lance and Scott Cranston, said they put countless hours into the design and construction of their winning machine, which they took on as an elective second/third year unit in mechanical engineering.

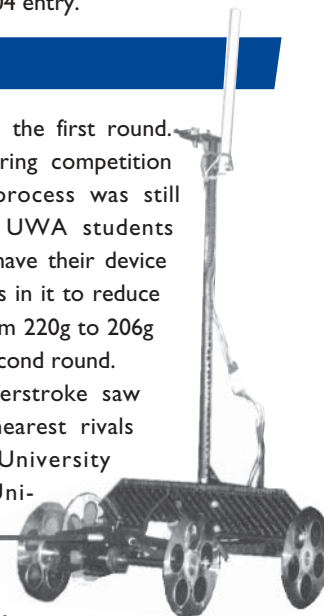
The competition's objective was to design and build a device, using commonly available materials and components, which moved along a horizontal surface to reach a vertical shaft while carrying two hockey balls and a light globe. The device then had to climb the vertical shaft, still carrying the light globe and hockey balls, to reach a minimum height of 750mm and stop. The score was based on the height achieved, time taken, weight and dimensions of the device.

They raced their contraptions at the national finals at the Sydney Powerhouse Museum, the UWA team

doing well in the first round. But even during competition the design process was still alive. The UWA students decided to shave their device and drill holes in it to reduce its weight from 220g to 206g before the second round.

This masterstroke saw them beat nearest rivals Swinburne University and The University of Newcastle, to win the competition for UWA for the third time (the first was in 1993).

Professor Mark Bush, Dean of the Faculty of Engineering, Computing and Mathematics, commended the efforts of all the students who participated in the competition.



THE last word

Dr Andy Sierakowski

Director, Office of Industry and Innovation, UWA

THE Knowledge

In mid-2003 I had the pleasure of being elected the Chair of Knowledge Commercialisation Australasia (KCA).

KCA is the peak industry body in Australasia bridging the commercialisation gap with members who are commercialisation practitioners. Members represent organisations engaged in public sector knowledge commercialisation, for example, creating new ventures and licensing the intellectual property of their institutions.

KCA is an innovative, open and independent association that promotes awareness and understanding of research and technology commercialisation in the academic, business and government sectors, which is relevant to the role of the Office of Industry and Innovation within the University.

The Office of Industry and Innovation was established to facilitate the commercialisation of The University of Western Australia's intellectual

property in the most effective way. We work with early stage investors, venture capitalists and other commercial interests who are keen to commercialise UWA's research outcomes.

The Office of Industry and Innovation assists UWA researchers in determining whether their inventions and discoveries have commercial potential, how best to protect them and also works closely with researchers to develop a commercialisation strategy.

Another key goal of The Office of Industry and Innovation includes the facilitation of contacts between industry and UWA researchers to explore collaborative research opportunities. As university research is at the early stage of the commercialisation process, many of our approaches to industry on licensing technology often lead to sponsored research contracts.

Membership of KCA is of great value to the University as it provides networks, advocacy, best practice training and global connections for its members. KCA's mission is to build skills, capabilities and effective management processes in organisations engaged in knowledge commercialisation and technology marketing.

In 2003 KCA was fortunate in securing the Hon. John Moore, former Federal Minister for Defence and Minister for Industry, Science and Tourism as Patron. John currently works as a Brisbane-based consultant, providing strategic advice to corporate clients, government agencies and authorities.

As part of the training and education objectives of KCA we are holding a conference on March 25 and 26 at the Burswood International Resort. The conference will provide members with short professional development sessions and they will be able to present opportunities to investors.

Case studies on technology

commercialisation will also be presented from Australian research organisations. The CEO of a UWA start-up company, Alzhyme Pty Ltd, will also detail its research and commercial progress.

For further information the program and registration information can be downloaded from our website www.kca.asn.au/events.

Topics in the professional development sessions include: research rights and patents; managing IP at the National Stem Cell Centre; university deals, what we have experienced to date; negotiating IP ownership with fair treatment for all parties; tax structuring and IP issues relating to companies.

As part of the conference attendees will join AICC — The Australian-Israeli Chamber of Commerce — for lunch on Friday March 26. The AICC is running an Innovation Luncheon, 'From Local to Global' presenting two world class innovation case studies that originated in WA. The guest speakers will be Andy van Kann, Managing Director of Kinetic Suspension Systems (*Kinetic — From Back Shed to Global Success*) and Bernard T Eastman, the Managing Director and Chairman of Eastman Group Ltd speaking (*Nostradamus, The Musical: Intellectual Capital Set to Music*).

Rob Muir, KCA Vice Chair and Director Business Development of The Australian Nuclear Science and Technology Organisation (ANSTO) will talk about *Doing the Deal in the US*. Recently returned from the US after 20 years in venture capital and tech commercialisation, Rob is driving ANSTO's commercialisation of its globally innovative R&D in advanced materials, biotechnology, and nanotechnology.

As you can see the conference is shaping up to be full of interesting and relevant case studies, investment opportunities and professional development all relating to the commercialisation of research. There are places still available but the conference is fast approaching so you will need to register by downloading the form from the website www.kca.asn.au/events.

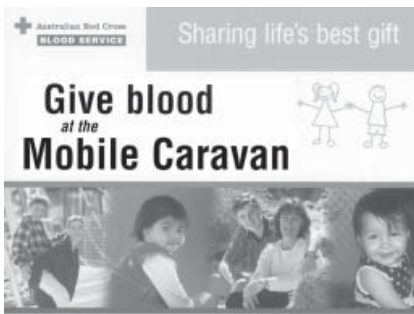


Compiled by Joanna Thompson

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See overleaf for details

Classifieds

FOR SALE

FORD FALCON FORTE AU 1999, auto, white, air con., p/steer, abs brakes, pwr front windows, air bag, factory immob. and tow bar. Excellent condition. \$10,000. Call 0404 041 298.

WANTED TO RENT

SHORT-TERM ACCOMMODATION NEEDED, May/July (approx. 8 weeks) for American student (male, 22yrs) with low budget. Shared house or flat, or bed and breakfast, near UWA would be ideal. Email jgillett@cyllene.uwa.edu.au.

FOR RENT

NEDLANDS, large house, ideal for visiting academics' family. 3 bedrooms, 2 studies, 2 baths, small yard, less than 5 minutes bike ride/10 mins walk from the northern edge of UWA campus. Short walk to Hampden St shops and bus stops and 2 minutes to King's Park (bushland and recreation). Fully furnished with kitchen fittings and utensils, linen, heating, etc. Owner will be away in Singapore from early July 2004 to early July 2005, so looking for a one-year tenant if possible. Asking \$400 per week; bills for electricity, gas, water, telephone will be tenant's responsibility. Email acciaioli@cyllene.uwa.edu.au; ph: 9386 7183.

PRIVATE HOME, quiet, immaculate, everything provided. Courtyards, deck, study, library. Suit couple. Five mins walk Hollywood and Sir Charles Gairdner Hospitals, UWA. Close to river, King's Park, shops, restaurants, transport. Available three months from 8 April 2004. \$250 per week. Phone 9386 6140 (a/h).

THREE-BEDROOM TOWNHOUSE with under-cover parking and lockable storage room, air-conditioning and rear courtyard. Very quiet location bordering on university colleges in Park Rd, Nedlands. Available from late March. Please contact owner on 0418 914 204 or crawley-apartment@iinet.net.au.

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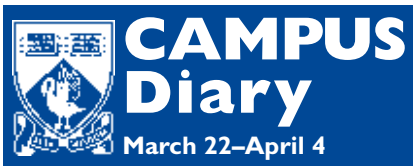
Redundant Equipment for Sale

ITEM	PRICE	COND.	AGE(YRS)	CONTACT	PHONE/EMAIL
Computer P111 550 Mhz with network card and 17" Soni Monitor	\$400	2	4	Dianne	3704
Canon Fax-L500	\$50	2	9	Geraldine	1971, gms@cyllene.uwa.edu.au

Bids should be accepted by Monday 5 April 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 3618/2546 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.



Tuesday 23 March

ANATOMY AND HUMAN BIOLOGY SEMINAR

'Australian marsupials: diversity and colour vision', Dr Catherine Arrese. Studies of mammalian colour vision have largely overlooked marsupials despite the wide variety of species and ecological niches and, most importantly, their retention of reptilian retinal features such as oil droplets and double cones associated with diurnal vision. This lecture highlights the uniqueness of the marsupial retina. The evolution of the potential for trichromacy (and possibly tetrachromacy) in Australian marsupials is discussed. 1pm, Room 1.81, ANHB.

PSYCHOLOGY COLLOQUIUM TALK

'Better the devil you know? Non-conscious processing of affect and identity of famous faces', Tim Valentine, Goldsmith's College, University of London. 11am, Rm 2.33, North Block, Psychology.

Wednesday 24 March

INSTITUTE OF ADVANCED STUDIES

'The Virgin Mary and the Protestant Reformers', Professor Diarmaid MacCulloch. Diarmaid MacCulloch is Professor of the History of the Church at Oxford University. He is a Fellow of the British Academy. His massive biography of Thomas Cranmer (1996) won three prizes including the Whitbread Biography Prize. His most recent book *Reformation: Europe's House Divided 1490-1700* is a magisterial work of over 800 pages which breaks new ground. Diarmaid MacCulloch's research interests are in the Reformation throughout Europe, and religion, politics and society in the British Isles in the sixteenth century. This lecture focuses on one of the important themes of religious division in the European tradition. 7.30pm, Social Sciences Lecture Theatre.

Thursday 25 March

FREE LUNCHTIME CONCERT

Chalmer String Quartet. Works include Debussy: String Quartet in G minor Op 10. 1.10pm, Octagon Theatre.

INSTITUTE OF ADVANCED STUDIES

Human Rights and the Protection of Innocence Symposium. Conveners: Associate Professor Ian Dadour, Centre for Forensic Science; Dr Neil Morgan, Crime Research Centre, Law School. This symposium will have a separate focus each day as follows: Evidence and the role of DNA (25 March); Human rights and the investigation of crime, with a particular focus on international covenants and how they might be applied (26 March); Victims and offenders rights (27 March). Registration is required for this symposium. For programme details and registration form please refer to the IAS web site at www.ias.uwa.edu.au or telephone 6488 1340, email ias@admin.uwa.edu.au. 10am, Thursday 25 March to 5pm, Saturday 27 March. Parmelia Hilton Hotel.

UWA FRENCH-IN-ACTION TOUR

Hélène Jacomard presents a one-hour free information session aimed at people interested in joining the three-week French-in-Action Tour (27 June to 16 July 2004.) Cost of tour: \$2500 and \$2900 (for non-students). Bookings by 2 April. Visit the web site: <http://www.arts.uwa.edu.au/European/VWWW/french/Fia2.html>. 4pm, Arts Seminar Room 2.45.

INSTITUTE OF ADVANCED STUDIES

'How DNA evidence is transforming criminal justice', Professor William C. Thompson. The Institute of Advanced Studies, in association with the Australian and New Zealand Forensic Science Society, cordially invite you to the public lecture by Professor Thompson, University of California, as part of the Human Rights and the Protection of Innocence Symposium (25-27 March). DNA evidence has brought immeasurable benefits to the justice system but has raised important and challenging new issues for society to consider. Professor Thompson will discuss how DNA tests work, how they have been used to identify criminals and to free the falsely accused, and how they occasionally go wrong. Potential risks and benefits that might arise from expanded use of DNA testing in the future are identified and steps society might take to assure this technology is used appropriately for the maximum benefit of society are discussed. All are welcome. The lecture is free and no reservation is required. For information on the symposium consult the web site www.ias.uwa.edu.au or telephone 6488 1340. 7pm, Social Sciences Lecture Theatre.

Friday 26 March

BIOCHEMISTRY SEMINAR

'Stat3 signalling: insights from the shores of the Swan to the Lion City', Dr Dominic Ng. 1pm, Simmonds Lecture Theatre.

MICROBIOLOGY SEMINAR

'Regulatory T cells in infectious disease', Andrea Paun, Microbiology. 9am, Microbiology Seminar Room 1.1.

Sunday 28 March

RSWA 2004 POSTGRADUATE SYMPOSIUM

Call for abstracts, posters and attendance. The Royal Society of Western Australia invites postgraduate students in agriculture, natural sciences, earth and environmental sciences, physical sciences, biology and environmental engineering to present the findings of their research at the sixth Annual Postgraduate Student Symposium. Finishing master's degree or PhD students or those who have submitted within one year of the symposium date normally present their work orally. Also invited are poster presentations from honours, master's degree or PhD students. See details of abstract and poster submission at <http://www.ecu.edu.au/pa/rswa>. Fellow students, scientists and interested members of the public are welcome to attend. This symposium includes a BBQ lunch that is free to all participants. Non-presenters should RSVP to symposium organisers by 19 March 2004 their intention to attend the symposium. Half-price membership rates are offered to new RSWA members on the day. 9.30am to 5pm, Zoology Lecture Theatre.

Give blood at the Mobile Caravan

Our caravan will be at UWA on the grassed area close to the Octagon Theatre at the following times:

Monday 22 March: 9am to 4pm
Tuesday 23 March: 9am to 4pm
Wednesday 24 March: 9am to 4pm
Thursday 25 March: 9am to 4pm
Monday 29 March: 9am to 4pm
Tuesday 30 March: 9am to 4pm
Wednesday 31 March: 9am to 4pm

For an appointment ring 9472 2082 or 0417 098 926 on the day.

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Tuesday 30 April

ANATOMY AND HUMAN BIOLOGY SEMINAR

'Generating tensions: the body as material and site in contemporary art practice', Kira O'Reilly. 1pm, Room 1.81, ANHB.

INSTITUTE OF ADVANCED STUDIES

'"Some Further Being": engaging with the Other in David Malouf's fiction', Associate Professor Don Randall, University of Bilkent, Turkey. All welcome. No reservation is required. 6pm, Geography Lecture Theatre 1.

PSYCHOLOGY COLLOQUIUM TALK

'Human cortical areas detecting visual features for reconstruction of apparent brightness: a fMRI validation of the local energy model', Adj/Prof Concetta Morrone, Psychology. 11am, Rm 2.33, North Block, Psychology.

Thursday 1 April

FREE LUNCHTIME CONCERT

Suzanne Wijsman (cello) and Graeme Gilling (piano). Works include Brahms: Sonata in E minor for Cello and Piano Op 38. 1.10pm, Octagon Theatre.

CLIMA SEMINAR

'Effect of water stress at different growth stages on yield and yield attributes of lentils', Renuka Shrestha, UWA; 'Genetic control of seed size in chickpea', Dr Patrizia Gremigni, CSIRO. 4pm, Rossiter Rm, CSIRO.

Friday 2 April

BIOCHEMISTRY SEMINAR

'Repair and reconstruction of visual pathways', Professor Alan Harvey, ANHB. 1pm, Simmonds Lecture Theatre.

Saturday 3 April

ARTIQUE LAUNCH PARTY

Artique is the young friends of the Lawrence Wilson Art Gallery and provides young Western Australians with a forum to indulge in fine art and to support the gallery and the UWA art collection. Immerse yourself in culture in an evening of art by Lisa Roet, exquisite food by Christopher Hiller, Australian fine wine and live performance by nationally acclaimed singer/songwriter Daniel Rata. Members: \$40; non-members: \$50. Tickets through BOCS: 9484 1133.