Early warning system for melanoma

by Lindy Brophy

An early detection system for melanoma is being developed in UWA’s Optical + Biomedical Engineering Laboratory.

It could help to reduce around 800 deaths from this skin cancer every year in Australia. Associate Professor David Sampson from OBEL is leading a group of six researchers who have funding from publicly listed Fimiston Resources and Technology, which is undergoing a transition from mining and resources to biomedical/biotechnology investment.

“We are not yet at a stage where our work can be commercialised. It is still a research project,” said Dr Sampson. But Fimiston Resources and Technology Ltd, soon to be renamed Xcell Diagnostics Ltd, has enough faith in the project to have invested $2 million over the next two and a half years in the so-called LightPath probe.

Sampson explained that to take a reading from a skin cancer or mole, a pencil-like non-invasive probe is placed on the skin and the spectrum is recorded and processed in what he calls a ‘lunchbox’ portable computer.

“The probe sees more than the human eye, the spectrum from yellow to near-infrared. Our eye sees a much more limited spectrum, from blue to red,” he said.

The spectrum reading is eventually what will help GPs to make a decision about what action to take over a suspect freckle or mole.

“Ultimately we hope the probe will be a small pen attached to a small box on a GP’s desk: an affordable and portable analysis and detection tool,” he said.

The probe is an extension of work begun in 1998 by Dr Sampson and one of his master’s students, Kirrily Wong, with a grant from the Cancer Foundation.

“We’re not the only group in the world working on early detection of melanoma, but there are only a few other centres in the US, the UK and Canada with access to a sufficient numbers of cases. These countries simply don’t have the incidence rates that we have in Australia — ours are the highest in the world, and in Perth we have ready access to patients,” Dr Sampson said.

“Our value-adding is all the ‘secret stuff inside the lunchbox’, the processing of the information which we hope to be

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The New Wealth of Nations

The Financial Times of London has recently turned its attention to Australia, by devoting a major editorial to our place in a globalising economy. With friendly but hard-hitting analysis (cheekily entitled “Howard’s End . . .”), and by focusing on our declining dollar in international currency markets, plus the related issue of levels of incoming investments, they highlighted our fundamental structural challenge – of moving from an historically commodity-led economy, to one which has a greater diversity in production and services.

Knowledge generation will need to underpin this transformation, for it is knowledge which not only drives the so-called new economy, but which also leads to key value-adding in the resource and commodity industries. Intellectual property becomes the new capital, the new wealth.

Globalisation can offer us huge opportunities. But it can also mean disruption and decline over time, unless we are able to compete successfully in the markets of the world. We are a small society by population, and our capital base is less than 2 per cent of the global financial markets. Marginalisation will be easy to achieve, if that is our wish!

I read the Financial Times while flying home from an international congress of several hundred Commonwealth Vice-Chancellors, where the theme had indeed been ‘globalisation’ and its meanings for the diverse nations and people of the Commonwealth (64 states of some 2 billion people involving, over 1000 universities).

It was impossible not to feel a sense of urgency and concern as we explored economic and social change among what is a pretty fair representation of developed and developing countries around the world. The fate of education and universities turned out to be a pretty good register of the health of these nations, and indeed the wealth of these nations.

Certainly, I came to a profound sense of worry for the trajectory of many African, Asian and Pacific Island nations, in which education, training and knowledge has struggled to meet community needs and, in a few cases, has almost collapsed. The information revolution is there a hollow phrase, or a taunt about a revolution happening elsewhere. A ‘digital ditch’ now divides such societies from the wide world of knowledge. The whole of Africa has less web access than New York city. Over 130 million children globally never go to school, at a time when the World Bank has shown that a 40 per cent literacy rate is a key base for sustained economic growth.

But we were also acutely aware of the huge scale of investment being made in the EU and North America (and select parts of Asia) in skill and knowledge generation. Our own, Australian comparative position is not very good, as the Chief Scientist’s 2000 Report indicated and as recent papers from the AVCC and Go8 have amplified and reinforced.

At that Commonwealth Conference I was particularly impressed with the substantial investment Canada is now reported to be making in education, especially the tertiary sector. Beyond basic infrastructure and research funding, the universities are to receive 2000 special professorships – competitively allocated – at junior ($100,000 pa) and senior ($200,000 pa) levels covering all fields of knowledge.

In this national election year, part of our task as University people must be to make the case to our community, at every possible occasion, to press for greater state investment in education, research and training.

‘Education is the key’, headlined the International Herald Tribune last week (28 April 2001, page 8); and then argued simply that, “If there is one lesson in the past half-century of economic development, it is that the natural resources do not power economies, human resources do . . .”.

That is also the best way in which we, as Australians, can ensure that our place in modern history as a new nation, living on the rim of a great region, and a global economic revolution – continues to be a positive one. Globalisation will then never mean marginalisation.

The ‘fragility of isolation’, the ‘tyranny of distance’, ‘life on the edge’. . . . these are all phrases which have come from our history. Our current era has the potential to be the most decisive yet in dealing with that haunting idea of being peripheral to the modern world.

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

In the last column, a typographical error led to reference to a submission from the Faculties of ECEL for the delivery of an undergraduate degree in “common law” taught entirely offshore. The reference should have been to an undergraduate degree in “commerce”.

Trainees are an asset to ECEL

If you could employ people who could write interactive programs for your students, fix your computers when they broke down and take over your accounts, would it make any difference if they had a disability?

Not according to the Executive Dean of the Faculties of Economics and Commerce, Education, and Law, Dr Paul McLeod, when he made the bold decision to take on three young people with disabilities under a new training scheme.

ECEL Administrative Officer Janette Barrett said the idea came from a web site posted by Edith Cowan University, to help people with disabilities to find work.

"Then Malcolm Fialho came into my life!" Ms Barrett said.

Mr Fialho is the diversity project officer for the Equity Office, and the employment of trainees has been a joint Equity/ECEL project.

The scheme is supported by the Chamber of Commerce and Industry and requires that the trainees complete a training certificate through TAFE while they are working at the University.

They have 18 months to complete their training and all three are employed part-time by the faculty.

"Their work is magnificent. They are willing and very capable," Ms Barrett said. "Substantial sponsorship comes with each trainee from associated agencies, and I highly recommend other departments and faculties to consider joining the scheme.

Jamie Graham is 19 and taught himself everything about computers by reading books. He is creating a web-based interactive program for economics students called Macromedia Flash.

He works in the Department of Economics on Tuesdays, Wednesdays and Friday mornings, studying information systems and telecommunications at Murdoch University on the other days. Jamie is supervised by Paul Crompton.

Paul Frayne is working in Accounting and Finance and is supervised by Amanda Godecke.

He wields a mean screwdriver when computers need attention and says that the University is a "great working environment" even if he does spend most of his time crawling round on the floor under other people’s desks! Paul is also honing his administrative skills in the department’s general office.

In the Graduate School of Management, Kim Welch is extending her knowledge of administration and accounting, working under the guidance of Office Manager Tracy Taylor.

"I’ve done administration work before but every day I’m picking up new skills here," Kim said.

If you would like to know more about the Equity Office’s new Diversity Workforce Project and the possibility of employing a trainee in your department or faculty, please call Malcolm Fialho on 9380 2252 or email mfialho@acs.uwa.edu.au.
Early warning system for melanoma

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able to present as a confidence level in the accuracy of the diagnosis of a melanoma.”

Fimiston (Xcell Diagnostics) will acquire 75 per cent of the technology, the University will hold the remaining interest in the project.

Working with David Sampson on the management of the project are Professor Michael Barber, Pro Vice-Chancellor (Research and Innovation), Fimiston Chairman, Ian Macpherson, and Dr Chris Quirk, a UWA-trained dermatologist and a Fimiston board member.

Dr Quirk and dermatologist colleague Dr Chris Clay are testing the LightPath probe in their private practices and in the dermatology clinic at Royal Perth Hospital. The associated histopathology will be undertaken by Dr Peter Heenan, an Adjunct Associate Professor in the Department of Pathology.

“We are recruiting more dermatologists and plastic surgeons to participate in the trials,” Dr Sampson said.

“The day went very smoothly, a lot more smoothly than previous years,” says Dave Dundas. “I’d like to put it down to all the hard work we put into it, and perhaps the fact that Perth people seem to have a lot more understanding of what PROSH is all about, that we’re about raising funds for charity, and not just a bunch of students having a good time, although we do have a good time while we’re doing it.”

Funds raised will go to a CanTeen Good Grief weekend for children and families coming to terms with the possibility of cancer, the WA Juvenile Diabetes Foundation, the Dyslexia Speld Foundation, the WA Deaf Society, and Cystic Fibrosis WA.

Economics and Commerce students took out the prize for best float with their theme from the movie, Top Gun.
Albany Centre coming of age

A permanent home, 66 students and $25,000 worth of scholarships . . . if the UWA Albany Centre was in its infancy, it is now a young adult.

The rapid growth of the Centre, at the forefront of flexible delivery of education in WA, is the result of two years of enthusiastic nurturing by UWA, the City of Albany and the people of the Great Southern region.

As Dr Billie Giles-Corti, the Centre’s founding director, goes on long service leave, she hands over a thriving institution, ready for its new base in the historic Penny Post building.

Barbara Black, a lecturer in higher education development in UWA’s Centre for Staff Development, will be acting director until the end of the year.

During that time, the old post office, partly built in 1868, then added to in the 1880s by distinguished architect George Temple-Poole, will be refurnished and refitted.

The building 25-metre clock tower is the city’s most distinctive feature and it seems appropriate that the original communications centre, bringing news to the harbour city, should now become the home of the University, bringing tertiary education to the region.

Albany architect and UWA graduate David Heaver is co-ordinating the refurbishment of the interior. The building will retain its heritage exterior but has been empty for several years and needs revamping to become functional for the University.

The Centre should move to its new home early next year.

Along with Barbara Black, another newcomer to the Albany Centre is Randall Jasper, the newly-appointed development officer, who will be working closely with the UWA Albany Foundation, to co-ordinate sponsorship and scholarships, and promote research opportunities.

Research appropriate to the region has begun with the Centre of Excellence in Natural Resource Management, a collaboration between UWA, the City of Albany, Waters and Rivers Commission, Agriculture WA and the Department of Conservation and Land Management. It has combined funding of $1.2 million.

Agriculture WA provides the headquarters for the centre with the teaching being done at the campus. Research and development will focus on catchment area geology and water management, use of degraded lands and oil extraction technologies for native plants.

Bring out your books

As the days get cooler, the weather is conducive to doing things like sorting out your bookcase.

The University branch of the Save the Children Fund welcomes your unwanted books (and sheet music, records and tapes) for its annual book sale in Winthrop Hall.

Last year, they made a record $100,000 in sales and the group is hoping for a similar result this year, to help children in need both in and out of Australia.

You can leave your donations at the old Anatomy Building, on the corner of Park Avenue and Crawley Avenue, at any time. Staff there sort books between 9.30am and 12.30pm each weekday. If you can help with sorting, please call co-ordinator Rosalind Lindsay on 9381 3423.

The sale in the undercroft of Winthrop Hall, starts at 6pm on Friday July 27. Mark it in your diary now. There are always some terrific bargains.
More than just an energy boost

Carbohydrates have a bigger role than that of providing energy to human beings.

Associate Professor Bob Stick’s new book, Carbohydrates: the Sweet Molecules of Life, looks at the broad range of roles carbohydrates play in biology and chemistry.

“It’s not a diet book: you won’t get any thinner by reading this book!” Professor Stick (pictured) said of his book, which he describes as new wave science.

He said that, for example, infection by influenza happened through a carbohydrate interaction. “And that introduces us to the whole subject of glycobiology.”

Carbohydrate chemistry began about 1970, as a development of organic chemistry, which dates back to the 1800s in Germany.

“Emil Fischer, one of the first organic chemists, was the greatest carbohydrate chemist ever,” said Professor Stick, who, in Fischer’s memory, has created one of his chapter headings: Heidi und Heinz.

“In biological fields, things are getting down to the molecular level, inside the cell, and we’re discovering things we don’t understand. So we needed a book to explain about basic carbohydrate chemistry, and this is it,” he said.

Professor Stick has been invited to chair the 21st International Carbohydrate Symposium in Cairns in July next year. It will include aspects of the chemistry, biochemistry, biology and biotechnology of carbohydrates.

For early information on the symposium, call Associate Professor Stick on 9380 3200.

OBITUARY

A lecturer with limericks

A chemist remembered both for his research into anti-oxidants and his love of limericks, died recently.

Dr Frank Hewgill, who worked in the Department of Chemistry for 35 years, retiring in 1994, died after a long time in hospital.

He came to UWA from Adelaide in 1959 and his work on anti-oxidants led him into the developing field of free radical chemistry.

Dr Hewgill taught organic chemistry to students in all years but his particular interest was with the medical students, a generation of whom will remember him for his weekly limericks as well as his polished lectures.

ABOVE: James McDonald (right) helps Dick Beilby to prepare the apron, while Kaye Hansen keeps an eye out for continuity.

TOP: The apron bursts into flames, though not spectacularly enough to delight James McDonald.
A Swiss chemist, fiddling around in his kitchen in 1846, accidentally discovered cellulose nitrate and started a revolution in explosives.

The story of Christian Schonbein’s role in modern day weaponry is part of an ABC-TV series, *Atoms of Fire*, which is presented by two postgraduate chemistry students, Amanda Tilbury and James McDonald. They are narrating and fronting the seven-part series on organic chemistry aimed at students in Years 11 and 12.

Producer Dick Beilby is making his third science series as a freelance producer. He decided to film the story of Christian Schonbein (in an episode on polymers) in the kitchen of historic Woodbridge House. But he detoured to a UWA car park to film the explosion, to protect the timber heritage house.

James McDonald explains what happened more than 150 years ago to put an end to smoky gunpowder as the most commonly used explosive.

“Schonbein had spilled a mixture of nitric and sulphuric acid on the floor and grabbed his wife’s cotton apron to mop it up. Cotton is basically cellulose. And when you nitrate it, that is, add concentrated sulphuric and nitric acid, it makes cellulose nitrate.

“He hung the apron over the stove to dry and BANG! It exploded. Cellulose nitrate started a revolution in explosives. It led to nitroglycerine, TNT and cyclonite. These chemicals still power the weapons of the world and are still a major force in engineering.”

James hid out of sight, applying heat to the nitrated cotton (or gun cotton) while the camera crew filmed the close-up shots of the apron bursting into flames.

They will be edited into the rest of the episode from Woodbridge House.
Money, security, excitement, employment, personal satisfaction — any or all of these are what most graduates want to achieve at the end of a university course.

As well as curiosity about what actually goes on at a university, prospective students want to know how to achieve the desired end result.

So Jacqui Tan, a commerce graduate, who has recently written back to her alma mater about her success, is the face of the University’s Open Day.

Her story will be used to encourage prospective students and their families to the campus on Saturday May 12, a date already indelibly inscribed on the minds of many of the staff, who have been working hard for months to make this Open Day even better than it was in 1999.

A committee chaired by Emeritus Professor David Lindsay and coordinated by Ian Liburne, from Public Affairs, has been planning every detail, from printing of programs to placement of pavilions, to ensure maximum information and enjoyment for the expected thousands of visitors.

Some departments will be open, others will be represented in marquees in the grounds. Some will run sausage sizzles or sell coffee and cake. There are demonstrations planned, hands-on activities being prepared, displays being mounted. If you don’t know what your department is doing, find out and offer your help.

Open Day will run from 10am to 4pm, with an unusual traditional welcome at noon, combining didgeridoo players, Aboriginal dancers and contemporary non-Aboriginal singers and performers. Be part of it!

Jacqui Tan outside the New York Stock Exchange — her local stamping ground.

Jacqui Tan reports from New York:

“Three years ago I graduated from UWA with a Bachelor of Commerce degree with first class honours in Finance. Since then I have been working as an investment banker at JP Morgan in the telecom, media and technology group on Wall Street, just a block down from the New York Stock Exchange.

“I often pinch myself to make sure this is for real. How did an Australian graduate with no previous work experience in the US manage to obtain one of the best finance jobs straight out of University!

“The answer is with some luck, some brains and without a doubt, my rigorous training at UWA. The solid grounding in accounting and finance theory, as well as the analytical research skills I acquired held me in good stead.

“I was able to satisfy the interviewers about my conceptual knowledge and understanding. In addition they were impressed with the honours curriculum at UWA, its detail, analysis and extensive coverage of finance theory.

“In short, my education at UWA enabled me to compete with and compare favourably with my peers in the US.”
Australian Research Council Fellow Dr Alan Walmsley remembers that when Australia’s first Ambassador was appointed to Jordan in the early 1980s the diplomat was anxious about the Jordanians confusing Australians with Austrians.

It was not an uncommon error in parts of the world where Australians were less well known, but the Ambassador’s anxieties were soon put to rest. “Every time he introduced himself as the new Ambassador for Australia, the Jordanians started talking about archaeology,” Dr Walmsley recalls.

Australian archaeologists were so well-known for their involvement in British archaeological expeditions in the region there was little risk of cultural anonymity.

In fact they were arguably better known for their activities in and around Jordan than anywhere else in the world, including until recent years, Australia itself.

The tradition was established by renowned Australian archaeologist Professor Basil Hennessy, who joined a British expedition in the excavation of Biblical Jericho in 1952 when Jerusalem was still under Jordanian control, then later returned as Director of the British School of Archaeology in Jerusalem.

Now in his 70s and retired, Professor Hennessy set the pace for successive Australian archaeologists interested in ancient Jordan, and in the period since the 1967 six-day war with Israel, an increasingly significant Australian involvement.

With 20 years experience himself in Jordanian and Middle Eastern archaeological research, Dr Walmsley is one of an estimable group of Australian archaeologists among the 150 international researchers currently at the forefront of Jordanian archaeology.

UWA-based Dr Walmsley wants to see Australia’s contribution recognised and consolidated.

“Internationally, the Australian presence in Jordan is very highly regarded, and I think it’s a strength and a presence we need to continue building on”

Dr Walmsley is also in the final stages of editing an anthology of archaeological work which effectively constitutes an historical perspective on the 50 years of the Australian involvement in Jordanian archaeology.

Titled Australians Uncovering Ancient Jordan: Fifty years of Middle Eastern Archaeology, the book includes contributions from 31 Australian and Jordanian archaeologists from universities in Australia, New Zealand and Jordan. It will be published by the Research Institute for Humanities and Social Sciences of The University of Sydney and the Department of Antiquities of Jordan, to coincide with the conference.

Describing himself as “a permanent Bedouin”, Dr Walmsley says he was drawn to UWA from The University of Sydney by the presence of another distinguished West Australian archaeologist, UWA’s Professor David Kennedy, who specialises in aerial reconnaissance photography.

“The eighth conference in the series is being co-ordinated by Dr Walmsley from his ARC base at UWA and will be hosted by The University of Sydney from July 9 to 13. It will be the first time the conference has been held outside its traditional arena of Jordan and Europe.

It is being funded by The University of Sydney, the Arab Bank of Australia, and other private benefactors.

More than 120 abstracts have been submitted on topics covering the stone age to modern Jordan.

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Community-minded graduates share Patrick O’Brien award

The first Patrick O’Brien Political Science Internship Award has been jointly awarded by the Patrick O’Brien Foundation to two high-achieving UWA political science graduates committed to extending their academic achievements to the wider community.

The interns are PhD student Wayne Errington, who is specialising in the democratisation process in South East Asia, and honours graduate Verity Wright, who is seeking to establish a new career path in advocacy for the benefit of not-for-profit community organisations.

The new internees received their awards at a UWA Faculty of Arts Prize-giving ceremony in Winthrop Hall last month.

In the third year of his PhD at the Department of Political Science, Wayne Errington intends to complete his PhD in South Korea early next year before enrolling in Korean studies at Yonsei University, South Korea. He will use the internship to further his studies in the democratisation process in South Korea, aiming ultimately for an academic or a public sector career specialising in Korean politics.

Verity Wright gained First Class Honours in Political Science in 1998 and hopes to spend her internship with the Australian Centre for Co-operative Research and Development (ACCORD) in Sydney, observing the links and relationships between the centre and not-for-profit and community organisations. Verity currently works at UWA’s Institute for Child Health Research (ICHR). She plans eventually to establish a consultancy in strategic advocacy for organisations without relevant skills or resources to represent themselves.

Both students were taught by the late Associate Professor Patrick (Paddy) O’Brien, Verity in Russian Politics, and Wayne in Ideologies.

“Wayne and Verity are both people with outstanding academic achievements who will use the award to develop professionally and further their practical knowledge, which is what the award in intended to do,” said Dr Bruce Stone, Head of the UWA Department of Political Science.

“The people involved in the selection process were also impressed by the contribution both people are likely to make in the wider community, Wayne through increasing knowledge about a country which is now Australia’s second largest trading partner but is still relatively little known in Australia, and Verity for thinking outside the square.”

Wayne said he shared the late Paddy O’Brien’s passionate interest in democracy.

“It’s one of the things that really interests me, what democracy really means and how we can reform our institutions to reflect democratic ideals. It’s something Paddy O’Brien was very interested in and it was his ability to really practise it rather than just teach it that was very inspiring.

“I also think it is important for countries that are just becoming democracies not to get into the sort of rut we are in with little public involvement, that they have an opportunity to create institutions that are much more participatory.”

Verity said she had always been community-oriented and wanted a career where she could make a difference.

“Things are changing so fast in the not-for-profit sector, with governments increasingly wanting to pull out of directly funding a lot of things. They would much rather there was some kind of corporate governance in the not-for-profit sector, so that these organisations become largely self-funded, or better equipped to make strategic alliances for themselves.

“I think this is just going to continue, and it becomes very complicated for not-for-profit organisations to adjust to the pace of change. I’d like to position myself to provide the services they are likely to need.”
Bridging theory and practice

by Trea Wiltshire

Strolling through UWA’s campus, you often come across students putting theory into practice. One such exercise involved the building of a masonry arch bridge on the manicured lawn of the Sunken Garden.

“We wanted to illustrate to the students how the theory they are learning can be applied to designing and constructing a fundamental structure such as a bridge,” explained senior lecturer Dr Andrew Deeks, who masterminded the bridge-building exercise along with Andrew Grime, a lecturer in Civil Engineering.

During lectures, the students designed both the bridge and the lifting frame (on wheels) used to move 150 kilogram concrete blocks into position.

“Previously, first-year Engineering students didn’t do any design. However we have changed the course, so that students in other disciplines receive an overview of material previously presented over several years in Civil Engineering. Because of this, first-year Engineering students now have enough information to do some basic structural design.

“The bridge building exercise is a first, and it has been a good way of illustrating that what is learned at first-year level can be used for practical purposes. Engineering involves lots of maths, so it’s nice for the students to have something real, something they can design and build . . . after all, that is what engineering is all about!”

While the temporary bridge was much admired in the Sunken Garden, it disappeared almost as rapidly as it had risen, while the picture-perfect garden prepared for more traditional engagements: a string quartet recital by students and a flurry of Easter weddings!
Robert Graves wrote the superb resume of his early life and rites of passage as he passed from youth to maturity. By virtue of their age, Chancellors of great universities rarely have this freshness of viewpoint. They must, if called upon to evaluate and recall, come from a rather more sober and nostalgic podium. Spike Milligan and Harry Secombe were of course exceptions, having been recruited when young by entrepreneurial institutions, yet even they, if asked to recollect, may have drawn out similar skeins of relevance to those which follow.

First the honour and pride. UWA is a truly great university, standing out from all the bravura and drum beating with which Australian universities increasingly surround themselves. To be its titular head is to be constantly aware of the past tradition and current excellence imbuing the Chancellor with a swagger which he or she should modestly contain being aware of the lines of Adam Lindsay Gordon –

’S so the coward will dare on another’s horse
What he never would dare on his own
Because he exults in a borrowed force
And a hardihood not his own.’

Then the bridging of relationships. The Chancellor must come from ‘outside’ — either after some period of active acquaintance with the mode and mores of the University or — as it now is currently possible following the changing of the University Act, with no such awareness and sensitivity whatsoever. ‘Outside’ may mean many things. What it does not mean is full membership of the University coterie and a true understanding of the joys, fears, anticipations and frustrations of those employed in universities and the nature of the constraints and taboos which surround their profession. These understandings must be acquired by empathy and inquiry. If not, the post becomes empty, isolated and remote.

Relationships extend outside of the University of course. This is why the desiderata for choice of Chancellor include a high public profile and ease of manner. The choice of the new Chancellor readily fulfils this requirement. In the changing atmosphere of business opportunity and commercialism these qualities and characteristics will become more important as the University expands and the role of Chancellor subtly changes as does the role of the Senate itself.

Leading the Senate requires tact and diplomacy with a modicum of management skills. Much of the management is done in the preparation for Senate meetings in conjunction with the Vice-Chancellor and the Executive. The Senate is a complex organisation combining widely ranging knowledge, skills and attitudes infused with a large quantity of commitment, ambition and pride all wrapped up in a potential for prickliness. Senate meetings, their aftermath and the relationships in between are part of the great joy and reward of being Chancellor.

And then there are the perks. Graduation ceremonies at UWA assume a memorability and timelessness which never fails to excite the participants, gratify the observers and requisite the academics who lend significance to the occasion. The Chancellor has the enviable role of personally greeting a host of young graduands and many postgraduates for whom the evening is one of permanent commemoration creating its own rite of passage.

All in all, a wonderful privilege and honour. Who would leave the position without some tinge of sadness and regret?
Research
Grants &
Contracts

ABORIGINAL & TORRES STRAIT ISLANDER COMMISSION (ATSIC)

ANTARCTIC SCIENCE ADVISORY COMMITTEE

ANZ FOUNDATION

AUSTRALIAN INSTITUTE OF ABORIGINAL AND TORRES STRAIT ISLANDER STUDIES
Ms K. Przywolnik, Anthropology: ‘Patterns of Aboriginal occupation in Cape Range Peninsula (WA) over the last 30,000 years’ — $9090 (2000).

GRAIN RESEARCH COMMITTEE OF WA
Dr T. Riddell-Smith and Dr S. Wang, Legumes in Mediterranean Agriculture, A/Prof E. Ghisalberti, Chemistry and Dr N. Rothnie (external): ‘Chemical mechanisms of resistance in lupins and aphids’ — $31,274 (2000-02).

GRAPE AND WINE RESEARCH COUNCIL
Prof J. Considine, Plant Science: ‘On the role of phloem development and function in development and ripening of the grape’ — $10,000 (2000-02).

GRAINS RESEARCH & DEVELOPMENT CORPORATION
Dr H. Clarke, Legumes in Mediterranean Agriculture: ‘Screening in resistance to chilling and helicoverpa sp. in chickpea’ — $277,000 (2000-02).


Dr M. Sweetingham and Dr B. Burchell, Legumes in Mediterranean Agriculture, Dr I. Frencl and Dr W. Sweikicki (external): ‘An international program for selection of lupins with improved resistance to anthracnose and fusarium wilt’ — $315,000 (2000-02).

HEALTH DEPARTMENT OF WA
Ms L. Cercarelli, Public Health: ‘Contract for Funding of Road Accident Prevention Research Unit by Health Department of WA’ — $125,000 (2000).

INTERNATIONAL RESEARCHER EXCHANGE PROGRAMME

JOHN NOTT CANCER FELLOWSHIP & RESEARCH FUND
Dr E. Williams, Applied Cancer Studies, Dr R. Vile and Mr M. Watkins (external): ‘Fellowship — Assessment of a gene therapy for melanoma using viral vector’.

LAND AND WATER RESOURCES R & D CORPORATION

NZ FOUNDATION FOR RESEARCH, SCIENCE AND TECHNOLOGY
Dr R. Cookson, (external): ‘Fellowship — The activity and composition of the microbial community in relation to nitrogen cycling in contrasting organically managed soils’.

UWA SMALL RESEARCH GRANTS


A/Prof S. Lewandowsky, Psychology and Dr M. Kalish (pictured), Psychology: ‘Facilitation of knowledge restructuring: Training better experts, faster’ — $12,489 (2001).

Dr D. Lloyd, Human Movement and Exercise Science: ‘Stabilisation of the ankle joint in three dimensions’ — $10,000 (2001).

A/Prof B. Griffin, Microscopy and Microanalysis: ‘The characterisation of charge-related effects on electron-induced x-ray microanalysis in the variable pressure/environmental scanning electron microscope’ — $18,928 (2001).


Dr S. Samarim, Physics: ‘Spin-resolved, low energy reflection (e,2e) spectroscopy of surface magnetism’ — $12,354 (2001).


Dr D. Yu, Physics: ‘Studies of atomic negative ion resonance by polarized electrons’ — $11,758 (2001).


Dr A. Page and Dr V. Locke, Psychology and Prof S. Tipper (external): ‘Defining some boundary conditions of thought suppression’ — $11,130 (2001).


Dr J. Rodger, Zoology: ‘The pharmacology of the retinotectal projection during optic nerve regeneration in lizards’ — $9000 (2001)/

Dr L. Simmons (pictured), Zoology: ‘Molecular markers for evolutionary studies of parentage’ — $18,000 (2001).

A/Prof P. Withers and Dr J. O’Shea, Zoology, and Mr K. Aplin (external): ‘The evolutionary transformation from insectivory to hypercarnivory in mammals: a new model system from the dasyurine marsupials’ — $8000 (2001).

Dr M. Ziman, Zoology: ‘A comparative study investigating the role of Pax genes in regeneration of the vertebrate visual system’ — $7000 (2001).

WA HEALTH PROMOTION FOUNDATION
Dr J. Hunt, Medicine, Ms S. Hickling and A/Prof K. Jamrozik, Public Health: ‘Evaluation and promotion of folate fortification in Australia’ — $105,058 (2001-02).


A/Prof K. Jamrozik, Public Health, Prof L. Flicker and Dr G. Hankey, Medicine, and Dr P. Norman, Surgery: ‘Perth elderly cohort study’ — $196,543 (2001-02).

RESEARCH GRANTS & CONTRACTS features in each issue of UWAnews
Monday 7 May
UWA EXTENSION PRESENTS GEORGE NEGUS
'The world from Italy: Football, food and politics.' The Australian television journalist will uncover a side to Italy and Italians that cannot be found in guidebooks or travel memoirs. George will speak not only of his experiences of living in San Giovanni Valdarno, a Tuscan town south of Florence, but also how this experience acted as a trigger for him to ponder much broader international issues such as a globalisation, IT and the emerging new political and social ideology of 'The Third Way'. 7.30 to 9pm, Hadley Hall, Methodist Ladies College, Claremont. Fee: $22; conc. $17. Bookings essential on ext. 2433 or at http://www.extension.uwa.edu.au.

BOTANY SEMINAR
'Factors affecting the recruitment of riparian vegetation on the Ord and Blackwood Rivers in Western Australia', Dr Neil Pettit, ECU. 4pm, Room 2.14, Botany.

Tuesday 8 May
SOIL SCIENCE AND PLANT NUTRITION/CENTRE FOR LAND REHABILITATION SEMINAR
'Flood and drought: a year in the life of a jarrah forest', Dr Ian Fordyce. 4pm, Agriculture Lecture Theatre.

PUBLIC LECTURE
'Is human evolution over?' Dr Steve Jones, The Galton Laboratory, University College, London. 6pm, Geography Lecture Theatre 1.

Wednesday 9 May
INSTITUTE OF ADVANCED STUDIES/INAUGURAL LECTURE
'Seeing in a moving world', Professor David Badcock, Psychology. 1pm, General Purpose Lecture Theatre 2.

GEOGRAPHY SEMINAR
'The mid to late Victorian model industrial towns—Saltaire, Bromborough, Bourne-ville and Port Sunlight', Don Newman. 1pm, Geography Lecture Theatre 1.

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
'Evaporation from saline and non-saline tailings', Dr Martin Fahey, Civil and Resource Engineering. 4pm, Blazers Lecture Theatre, Mathematics and Statistics Building.

Thursday 10 May
FREE LUNCHTIME CONCERT
'A charm of English song', Megan Sutton (contralto) and Graeme Gilling (piano). A recital of songs by English composers featuring Benjamin Britten’s exquisite A Charm of Lullabies, and including works by Quilter, Head and Hughes. 1.10pm, Octagon Theatre.

HUMAN MOVEMENT AND EXERCISE SCIENCE GUEST LECTURE
'Mood alteration and related meanings in physical activity: exploring integral connections', Professor Bonnie Berger, School of Human Movement, Bowling Green University, Ohio. 1 to 1.45pm, Human Movement and Exercise Science Lecture Theatre.

ZOLOGY SEMINAR
'Evolutionary patterns from phylo-geographic and population genetic studies in the southwest flora: implications for conservation', Dr David Coates, CALM. 4pm, Jennifer Arnold Lecture Theatre.

PERTH MEDIEVAL AND RENAISSANCE GROUP TALK
'Gossip and defamation in late fifteenth-century London', Dr Stephanie Tarbin, History. 7.30pm, Postgraduate Lounge, Hackett Hall.

Friday 11 May
MICROBIOLOGY SEMINAR
'Jumping rats and blinking people: dopamine effects on the modulation of the startle reflex'. A/Prof Mathew Martin-Iverson, Department of Psychiatry and Behavioural Science. 9am, Seminar Room 1.I, First Floor, L Block, QEIMC.

Monday 14 May
BOTANY SEMINAR
'The effect of multiple catastrophic events on population demography: case study of a common, fecund restiad in the northern Kwongan', Dr Kathy Meney. 4pm, Room 2.14, Botany.

INSTITUTE OF ADVANCED STUDIES/ UWA PRESS SEMINAR
'Gender and migration', Dr Nonya Peters, Curtin University. 1pm, IAS Building

Tuesday 15 May
SOIL SCIENCE AND PLANT NUTRITION SEMINAR

Wednesday 16 May
CHEMISTRY SEMINAR
'Structural chemistry of adducts of simple group I salts with (2,9-dimethyl)-1,10-phenanthroline', Allan White. 12 noon, White Lecture Theatre.

GEOGRAPHY SEMINAR
'Astroloma: fruits of the Kwongan—bushfood, fruit traits and seed dispersers', Jerome Bull. 1pm, Geography Lecture Theatre 1.

CENTRE FOR WATER RESEARCH/ENVIRONMENTAL DYNAMICS SEMINAR
'Flow regimes and phytoplankton dynamics in the Swan River Estuary: evaluation using an ecological model', Dr Barbara Robson, Centre for Water Research. 4pm, Blazers Lecture Theatre, Mathematics and Statistics Building.

KEYED UP—SOLO PIANO RECITAL SERIES
'Christiano Burato, winner of the Chopin prize in the 1996 Sydney International Piano Competition, in a recital featuring works by Frederic Chopin. 7.30pm, Octagon Theatre.

GRACE VAUGHAN AWARD—2002
In 1984, friends and colleagues of the late Grace Vaughan provided a sum of money to establish an award to be offered annually to individuals wishing to pursue studies in the area of social justice and human rights at UWA, or individuals with a demonstrated scholarly or professional concern for social justice and human rights wishing to travel in Australia or overseas for further studies likely to benefit the community.

Previously the award has been given to candidates to assist with—

• the collection and assessment of data in relation to research into the treatment and incarceration of Aboriginal juveniles under the juvenile justice system of Western Australia.
• study in the area of human rights issues concerned with equity for dispossessed indigenous people.
• study into an examination of poverty amongst British women in the 19th century.
• assistance with a variety of community and rural development work in Bangladesh.

The award for 2002 will be $2000. The closing date for applications is 1 September 2001.

Interested applicants or those requiring further information should contact the Faculty Administrative Officer (Arts) on (08) 9380 2096, or email arts.faculty@uwa.edu.au or: http://www.arts.uwa.edu.au/gracevaughan/
Thursday 17 May

FREE LUNCHEON CONCERT
A highlight of the French sacred repertoire, Poulenc’s Mass in G Major. Featuring The WAIM Chamber Choir and directed by Anthony Maydwell. 1.10pm, Winthrop Hall.

ZOOLOGY SEMINAR
‘The role of neural activity in functional regeneration of the central nervous system: an evolutionary perspective’, Dr Vicky Stirling. 4pm, Jennifer Arnold Lecture Theatre.

HERDSA WA BRANCH TEACHING AND LEARNING SEMINAR
‘Developing students’ critical ability to learn how to learn’, Professor Ron Weber, University of Queensland. 4 to 6pm, Geography Lecture Theatre 2. RSVP to the Centre for Staff Development on ext. 1504.

INSTITUTE OF ADVANCED STUDIES SEMINAR
‘The geography of contact history: the case example of the Yanyuwa from the Northern Territory’, Dr Richard Baker, Geography, ANU. 6pm, IAS Building.

Friday 18 May

MICROBIOLOGY SEMINAR
‘Functional genomics and drug target validation’, Dr Frank Koentgen, WAIMR. 9am, Seminar Room 1.1, First Floor, L Block, QEII-MC.

ASIAN STUDIES SEMINAR

CIVIL AND RESOURCE ENGINEERING SEMINAR
‘Modelling the behaviour of cemented sand’, Shambhu Sagar. 3.45pm, Room E151, First Floor, Civil Engineering Building.

THE PHILOSOPHY SOCIETY MEETING
‘Buddhist “no-self” and the knowledge argument’, Miri Albahari, University of Calgary. 4.15pm, Arts Seminar Room 1.33.

PATHOLOGY SEMINAR
‘Epigenetic modification of DNA and neoplasia with special reference to cytosine methylation’, Dr Peter Kay, Pathology. 4.30pm, Pathology Conference Room, G14, Ground Floor, M Block, QEII-MC.

Monday 21 May

BOTANY SEMINAR
‘Changes in eucalypt abundance in Kings Park, Perth’, Katinka Ruthrof. 4pm, Room 2.14, Botany.

ADVANCE NOTICE
Tuesday 12 June

ARTS ‘CAREERS IN ASIA’ NIGHT
Keynote speaker: Lieutenant General John Sanderson AC, Governor of Western Australia; Graduate speaker: Colin Yoong. 7.15pm, Social Sciences Lecture Theatre. Admission is free but bookings are essential. Telephone Dr Philippa Christmass on ext. 3316 or email arts.marketing@uwa.edu.au by Monday 11 June.

TABLE OLIVE WORKSHOP

Sunday 27 May

9am to 4pm

Cost: $145

Olives are now on the trees. If you want to learn more about table olive processing then the place to be is at UWA’s Faculty of Agriculture, where Professor Stan Kailis will present a day workshop. Professor Kailis will show the best varieties of olive to plant, how and when to pick olives and the processing methods to get the best results. The workshop will appeal to a wide range of persons from those that love olives to the more serious growers. During the workshop, hands-on activities will include olive tasting, olive evaluation, olive processing and marinating, and making tapenade. Lunch will include dishes based on Mediterranean and Middle East cuisine. All notes, olives and materials are provided, however you may wish to bring your own olives for processing or tasting.

Contact Professor Stan Kailis, Plant Sciences Group, Faculty of Agriculture, tel: 9380 1108; email: skailis@agric.uwa.edu.au.

WORKSKILLS PROFESSIONALS

ADMINISTRATION, COMPUTING & ENGINEERING PERSONNEL

Does your department require personnel for an upcoming assignment? An international seminar? Administration support? IT solutions?

Workskills Professionals is a Western Australian owned Recruitment Company. We provide personnel for large corporations and feature on Government preferred supplier contracts throughout Australia. Nationally, we have access to over 20,000 registered candidates — all experienced in the fields of Accounting, Administration, Computing, Engineering, Secretarial just to name a few! Successfully Workskills Professionals provided well over 800 staff for the recent Western Australian State Election.

We have successfully placed over 300 temps throughout the University of Western Australia in the past 7 years and continue to deliver. There is no substitute for experience, so please contact us for all of your temporary, contract and permanent personnel requirements.

Contact: Paula Cousins   Tel: 9201 7777  Fax: 9201 7778
Email: request@workskillsprofessionals.com.au

www.WorkskillsProfessionals.com.au

Building stronger relationships

Associate member

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Contact: Paula Cousins   Tel: 9201 7777  Fax: 9201 7778
Email: request@workskillsprofessionals.com.au

www.WorkskillsProfessionals.com.au

Building stronger relationships
FOR RENT
AN UNFURNISHED DUPLEX with two bedrooms, a study and very private shaded backyard is offered for rent at $180 per week. The house is in a scenic location at the border of City Beach (Brompton Rd), 15 minutes drive from UWA and at walking distance from shops, school and the beach. Available in early May 2001. Call Eugene Ivanov on 9380 3818 or mobile 0438 415705.


FIVE-BEDROOM character fully furnished home in Cottesloe, federation with verandahs all round. Suit professional with family. Five minutes walk from Cottesloe Beach and 10 minutes drive to UWA. For July, Aug and Sept 2001 or there abouts, non-smokers. $500 per week. Call Ellen on 9384 6098 a/h.

WANTED TO RENT
HOUSESIT/EXCHANGE/RENTAL accommodation sought for visiting ANU academic with family (spouse plus 2 school-age children) from July 2001 for 12 months. 3 bedroom house convenient to UWA. References available, willing to care for pets, garden. Contact Helen on 2328 or hvallace@library.uwa.edu.au.

FOR SALE
COMPUTER, Digital Venturis 486 Processor. $150 ono. Phone ext. 3414.

PROSH Bitter takes to the streets with the Perth Bleakly.

Microscopy Courses for June 2001

<table>
<thead>
<tr>
<th>Course</th>
<th>Dates</th>
<th>Max.</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning Electron Microscopy</td>
<td>11 to 14 June</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Electron Microbeam Analysis Course</td>
<td>13 to 15 June</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Environmental Scanning Electron Microscopy</td>
<td>21 to 22 June</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Optical Microscopy</td>
<td>25 to 27 June</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Confocal Laser Scanning Microscopy</td>
<td>2 to 3 July</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Biological Transmission Electron Microscopy</td>
<td>4 to 6 July</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

The course covers basic scanning electron microscopy, digital imaging and minimum sample requirements. Users will be trained on instruments appropriate to their needs to a basic operational standard. Afternoon practical sessions support the theory. Any queries contact A/Prof Brendan Griffin, ext. 2739, email: bg@cyllene.uwa.edu.au. Please note that this course is a prerequisite for the Electron Microbeam Analysis Course and the Environmental Scanning Electron Microscopy Course.

Introductory Transmission Electron Microscopy: This course gives an appreciation of the capabilities of TEM, practical training in the operation of the microscope and instruction in the interpretation of results. It is suitable for biological, physical scientists and engineers. Any queries contact A/Professor Andrew Johnson, ext. 2764. Please note that this course is a prerequisite for the Crystallography for Electron Microscopists and the Gatan Image Filter Courses which will be held later.

Electron Microbeam Analysis: This is an introductory course in 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 is also covered. Afternoon practical sessions support the theory. The final session will include discussion of applications, interpretation and problems that may be encountered. Any queries contact A/Prof Brendan Griffin, as above. Completion of the S.E.M. course is a prerequisite for this course.

Optical Microscopy: This course covers general principles and application of all areas of light microscopy including brightfield, phase contrast, normaski interference, polarising and fluorescence microscopy. Basic histochemistry for high resolution light microscopy will also be included. Any queries contact Professor John Kuo, 2765, email: jjskuo@cyllene.uwa.edu.au.

Digital Image Manipulation and Storage: This course is in two parts: Part A will cover the digital 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 5.0 NIH Image 1.62, Macromedia Freehand, 7.0 and PowerPoint 5.0. The course is conducted on Macintosh computers but is generally platform independent. Each part will consist of a two-hour presentation followed by hands-on practicals. For further information contact A/Prof Brendan Griffin as above.

Confocal Laser Scanning Microscopy: The course covers the theory and practice of confocal microscopy. Students are encouraged to bring their own samples for practical sessions. Any queries please contact Professor John Kuo as above.

Biological Transmission Electron Microscopy: This course covers both the theory and hands on practical training for specimen preparation, ultramicrotomy and TEM operation for biological applications. Any queries please contact Professor John Kuo as above.

Places are limited but all courses are open on a first-come basis, except that UWA course requirements take precedence. There is no cost to UWA students or staff. No cost to Curtin participants. $150 per day for others. Application forms can be obtained from the Centre's website or by telephoning 9380 2770 or fax 9380 1087.

Redundant Equipment for Sale

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRICE</th>
<th>AGE</th>
<th>COND.</th>
<th>NAME</th>
<th>E X T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Macintosh Plus, SE, SE HD, SE 30</td>
<td>Offers 13 to 9</td>
<td>2, 3, 4</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
</tr>
<tr>
<td>Apple Macintosh LC 630 (no CD) &amp; LC 575</td>
<td>Offers 7 to 6</td>
<td>2, 3</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
</tr>
<tr>
<td>Apple Macintosh IIfx, IICI, IItsi</td>
<td>Offers 11 to 8</td>
<td>3, 4</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
</tr>
<tr>
<td>Some with multiple graphics cards LC I, IItsi</td>
<td>Offers 11 to 7</td>
<td>2, 3, 4</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
</tr>
<tr>
<td>Apple mono &amp; colour monitors various &amp; A4 portrait to suit LC and Mac II etc.</td>
<td>Offers 14 to 6</td>
<td>2, 3, 4</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
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<tr>
<td>Apple NT laserwriters</td>
<td>Offers 7(1) to 9(1)</td>
<td>3, 4</td>
<td>Mark S</td>
<td>1855</td>
<td></td>
</tr>
</tbody>
</table>

Bids should be accepted by Monday 21 May 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 3618/2547 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.