A large family in Sydney could hold the key to cholesterol-induced heart disease.

Dr John Burnett, a medical biochemist at Royal Perth Hospital and clinical senior lecturer in UWA’s School of Surgery and Pathology, and his team believe they have discovered a potential major health breakthrough by studying a family that has a rare genetic disorder associated with low levels of LDL, the ‘bad’ cholesterol in the blood.

Some of the family members have extremely low cholesterol levels, which potentially reduces their risk of heart disease. “They have a ‘missense’ mutation in the APOB gene that alters a single amino acid, (out of 4,530) in the apo B protein, and it makes all the difference,” said Dr Burnett, who was working in Sydney ten years ago, when the family and its unique disorder came to light.

A woman from a large Christian Lebanese family had her cholesterol level tested and it was found that she had LDL cholesterol. As this was highly unusual, she was referred to a lipid disorders clinic and Dr Burnett, whose special area is lipid research, became involved.

“We since found that 14 of her extended family, including parents, siblings, children, nieces and nephews, have extremely low levels and there is one other family member who, like her, has hardly any LDL cholesterol at all,” Dr Burnett said.

Such low levels protect people from heart disease and usually lead to longevity. Dr Burnett said the family members in the woman’s parents’ generation are all in their 80s and healthy. “As far as we have been able to ascertain, over 10 years of research, there is no down-side to this genetic mutation. All the family members are well and healthy, even though, as a cultural group, they would have an increased risk of developing high LDL levels and premature heart disease,” he said.

“Understanding a naturally-occurring low cholesterol state in people is a novel approach that might lead to new strategies to help those with the “opposite problem of high cholesterol and cardiovascular disease.”

Dr Burnett said there had been other cases of
We are all aware of the great Moreton Bay Fig tree which stands in all its grand glory at the heart of the old campus. For many graduates, it is the very symbol of the wonderful Crawley campus itself.

How did it come to grow as it did? One answer was provided by Emeritus Professor George Seddon who gave a typically erudite and fascinating lecture in the Tropical Grove one early evening last week – as part of the founding of the new “Friends of the Grounds” group of graduates being chaired by Mrs Rose Chaney, following pioneer work by Justice Kennedy, our former Chancellor.

The fig tree was introduced into the gardens by the redoubtable George Munns, Gardener Extraordinary … and the blood and bones used to nourish the young tree was apparently supplied by the carcass of a cow, which was brought from the cattle pens at the south end of the campus!

This graphic image remained in my mind as, several times lately, the value of the campus has been raised in university discussions – whether it was in regard to the marketing plan, or Senate’s strategic review of University capacities and goals, or the Guild President’s welcome to the Class of 2003.

That social dimension of the ‘UWA experience’ symbolised by the Campus, is indeed an integral part of the UWA degree, a critical addition to our academic emphasis on the teaching-research nexus, or the comprehensive educational programs which value generic arts and sciences as a preparation for work and citizenship.

In a complex and conflicted world, the campus can seem like an oasis of beauty and calm, a perfect environment for learning and recreation, fun and friendships.

Yet, even our beautiful campus changes as the world changes. And, more than that, the campus becomes the centre for learning about the wider world, both a way into the world and also a gateway for empowering new knowledge from around the globe.

The most powerful and dramatic statement of these functions was the opening of the Innovation Precinct by the Premier recently. This superb ICT laboratory building is home to the Motorola Software Engineering Laboratories and cutting edge IT research, in conjunction with our engineering and science faculties. The very design of the building — the most dramatic statement of modernity on the campus and its precinct — is a statement about the future: a future premised on international partnerships, involving UWA, WA and global business.

That international theme also ran through other events on campus. The beautiful sunken garden was the venue for welcoming the new post-graduate students, many of whom come from outside WA and outside Australia, as the Dean of the Postgraduate Research School rightly reminded us. The Sunken Garden was also the venue for a significant and well attended gathering recognising International Women’s Day at which Caroline Wood, of the Centre for Water Research, passionately recounted the inequality and violence suffered by women in countries around the globe.

The annual Perth International Arts Festival has just closed and we have farewelled the Director of the past four years, Sean Doran, on his appointment to the English National Opera Company, at a party in the grounds. PIAF brings performing artists from many cultures to WA and provides a remarkable link to international arts developments. UWA is the proud founding sponsor of PIAF, which remains a testament not only to community service but to internationalisation.

We look outwards from under the Great Fig Tree and a good thing that we do so. More than 40 per cent of our graduates will work outside WA, and an increasing percentage actually overseas. All graduates will work in an environment shaped by forms of globalisation. Research of international excellence requires international alliances and quality performance needs external benchmarks. ‘Cultural competencies’ are needed by all of us to live as citizens of the world.

Campus in the Community …1963-87, was the evocative title of Professor Brian de Garis’ history of UWA. Today the book could well be titled Campus in the World Community.
World recognition for taking on a world-wide problem

If all his international awards were medals he had to wear, Professor Murugesu Sivapalan would walk with a stoop.

But the professor of hydrology at the Centre for Water Research, known to all simply as Siva, can hold his head high as he travels to France next month to receive his latest accolades.

The European Geophysical Society (EGS) and the American Geophysical Union (AGU) are holding a combined meeting at which Professor Siva, a world leader in catchment hydrology, will be honoured, early in April.

He will be presented with the EGS’s prestigious John Dalton Medal for 2003, for outstanding contributions to theoretical hydrology, and he will be made a Fellow of the AGU, for eminent contributions to geophysics.

Professor Siva is the first Australian and the first from the Australasian region to receive the John Dalton medal. “It has always gone to giants in the field of hydrology and I feel I don’t belong there,” he said modestly.

But his election to the AGU is proof of his standing in the geophysical community. Of the 900 fellows in the Union, fewer than 100 are hydrologists, and only a dozen of them are non-Americans. Professor Siva is only the second Australian to be elected to the elite Union.

His hat-trick in April will be accepting an Australian Centenary Medal from the Governor-General.

On top of these three honours, Professor Siva has recently been made chair of a 12-member task-force to lead the International Association of Hydrological Sciences (IAHS) in its Decade on Prediction in Ungauged Basins (PUB).

“It is a highly scientific issue with a high societal relevance,” Professor Siva said.

“All over the world, water quality and quantity are impacted on by people and the way they live. We need the best possible monitoring (or gauging) system, so we can track not only how much rain falls in specific places but what happens to the water after that.

The international hydrologists’ logo: six blind men’s perception of an elephant: “All the scientists have different views but we are coming together to get an answer to one big problem…”

Professor Siva: “… I love the challenge of working on something practical that satisfies me as an engineer, as well as a scientist…”

“The same amount of rain in two different places can have vastly different consequences. Governments everywhere have cut back on rain gauges, thinking they are making cuts that won’t hurt anybody. But gauging water is of the utmost importance if we are to know where to start to improve water quality and quantity throughout the world,” he said.

“We aim to make maximum use of remote sensing via satellites. By increasing the level of our knowledge and understanding and combining all the tools we have, we will be better able to manage the world’s water.”

Professor Siva said the field of hydrology had been seriously fragmented around the world but this PUB initiative was bringing the hydrology community together.

“We have chosen, as our logo, The Blind Man and the Elephant, the traditional Indian story of six blind men’s perception of an elephant.

“Each of them felt a different part of the animal, so they all had different ideas (partly right but all wrong) about the elephant. The man who felt the tail said the elephant was like a strong rope; the man who felt a leg said the elephant was like a big tree; the one who felt his trunk said the elephant was like a snake, and so on.

“All the scientists have different views but we are coming together to get an answer to one big problem,” Professor Siva said.

“Some people typecast me as a theoretical scientist, but I love the challenge of working on something practical that satisfies me as an engineer, as well as a scientist,” he said.

Professor Siva has lived and worked on five continents and been decorated for his work in Europe, Asia, Australia and North America. He has been at the Centre for Water Research for 14 years.
An irritating task for one person can be a liberating change of lifestyle for another.

Three new assistants in the Faculty of Life and Physical Sciences, employed through UWA’s Workforce Diversity Strategy, have freed up administrative staff by taking over some of the routine, time-consuming work of filing, mailing and deliveries.

For two days a week, Anoja Nawaratna, Lara Stock and Greg Ryan work in the Faculty, and achieve a sense of satisfaction as well as supplementing their pensions.

Employment consultant Shirley Russell, from South Metropolitan Personnel (SMP), which specialises in placing people who have difficulty getting employment, is initially supervising the new staff. Once they are settled in, they will have a permanent supervisor, although they will eventually undertake tasks such as inter-school deliveries, on their own.

“This is a first for the University, to have a supervised cohort of employees with high support needs,” said Ms Russell, who, with UWA Diversity officer Malcolm Fialho, has facilitated several diversity employment projects at the University.

“There are people at UWA who can now more easily achieve what they want because of people like Anoja, Lara and Greg. By taking on basic clerical work, they can free up other clerical and administrative staff to move on to more complicated work,” she said.

Anoja, who uses a wheelchair, says she is still learning some alternative routes around the campus because the most direct routes between buildings are not always wheelchair-friendly.

Greg has previously worked for Good Samaritan Industries, doing mail deliveries, and is computer-proficient. Lara has also had previous clerical experience.

Faculty administrative assistant Susan Pippet, said there was always “loads of work to do in the Faculty at this time of the year.

“Their help is invaluable,” she said.

“And, later in the year, there will be plenty of photocopying of course work and mail-outs.”

Another UWA employee from the Diversity Job Bank, Jamie Graham has moved from economics to architecture.

Cholesterol research

Continued from page 1

extremely low cholesterol levels, but they had all been associated with a truncated or shortened apo B protein. The critical protein in this case is full length. It is simply one single metabolic malfunction that produces cholesterol levels as low as if the affected family members were taking high doses of statin drugs.

In collaboration with Canadian researchers, his lipid research lab has done some intricate cell work to find out what is going on in these individuals. “We are now in the position to generating a ‘knock in’ mouse with the same mutation added in, which will tell us a whole lot more,” Dr Burnett said.

His PhD student, Amanda Whitfield, is off to Canada to further the research. Dr Burnett said he would love to go to Lebanon to see if he could trace the origin of this genetic malformation.

His ground-breaking work will be published in the prestigious scientific journal, The Journal of Biological Chemistry next month. It has been partly supported by a Raine Medical Research Foundation priming grant.
Foundation research shored up

The multi-billion dollar oil and gas industry off our north-west coast will continue to benefit from major funding to UWA by the Australian Research Council.

The national research funding body recognises the role played in the industry by UWA’s Centre for Offshore Foundation Systems (COFS) and recently renewed its funding for its third three year period.

The ARC’s triennial review of the Centre was highly complimentary and recommended funding be continued at the current level of $931,877 per annum, indexed every year.

“The Panel’s assessment of COFS is that it is a dynamic, exciting research centre with outstanding fundamental research outputs, strong links to industry, and very successful research training,” said the ARC report.

“It has achieved an international reputation for quality innovation and practical solutions to complex engineering problems. It is advanced in its preparations to become a coherent, integrated, self-sustaining component of the University.

“The links forged with government and industry demonstrate that the Centre has established a firm base from which to attract funding through grants and commercial means.”

The founding director of COFS, Professor Mark Randolph, is on long service leave, from which he will soon return as the Rankine lecturer, presenting the prestigious annual lecture organised by the British Geotechnical Society at Imperial College. It is considered a true measure of international leadership in geomechanics, civil and geotechnical engineering.

Just before going on leave last year, Professor Randolph was also honoured with election as a Fellow of the Royal Academy of Engineering (UK).

In his absence, Dr Mark Cassidy, one of COFS' key researchers and a lecturer in civil engineering, explained that Professor Randolph had set up the Centre in 1997 after the oil and gas industry had huge problems with instillation of the Goodwin and North Rankin platforms on the North-West Shelf, which cost many millions of dollars and loss of a full year of revenue.

“At that time the understanding of foundation response was mainly based on experience in the more mature North Sea and Gulf of Mexico sectors. In a nutshell, the platforms had been designed much the same as other off-shore drilling platforms in places like the North Sea,” Dr Cassidy said. “Of course, conditions off the coast of WA are very different, and design methodologies must change with these soil conditions. This is the impetus for the research at COFS. It was this situation that gave Mark the impetus for the centre.”

With a node of COFS in Sydney, research and support staff numbering more than 40, and the centre now accounting for about half of all PhDs graduating in this field world-wide, it is one of the world’s biggest off-shore foundation modelling facilities.

Research staff and students have presented 158 conference papers at international conferences and, between 1997 and 2001, have had 106 journal articles published, about a quarter of them in the top two geotechnical journals in the world.

The centre’s reputation is illustrated by three international contracts won between 2000 and 2002. The first of these was a $750,000 contract with the Oil and Natural Gas Company of India (NGI) for the development of a model testing capability for their Institute of Engineering and Offshore Technology in Mumbai.

Another project was funded by the American Petroleum Institute for establishing design and analysis techniques for deepwater anchoring. The third was a collaboration with the Norwegian Geotechnical Institute to establish improved methods for in situ characterisation of deepwater sediments (funded by a group of six oil companies).

The ARC report said that research outputs from COFS had saved industry many millions of dollars and that there was a commitment by industry partners to develop a Futures Foundation to guarantee support for ongoing research by the centre both now and in the period beyond ARC funding.
Racing towards an Engineering degree

The third year of one of the University’s most popular student projects has started on a high note.

The 2002 UWA Motorsport Team finished brilliantly in the Formula SAE competition in Melbourne in December, coming second overall, beating all the international teams and just losing out on first place to the University of Wollongong, by a mere 40 points out of a total of 1,000.

This success has revved up the engineering students who have already started work on this year’s racing car, aiming to go all the way to the top this time.

Graduations, time for the rewards

When lawyer Sue Gordon is made an Honorary Doctor of Letters during this season’s graduation ceremonies, she will still have very vivid memories of the first time she received a degree from UWA.

In fact, it was only a year ago when the children’s court magistrate was awarded her law degree, after eight years of part-time study.

Sue Gordon was the first full-time magistrate appointed to the Perth Children’s Court and the first Aboriginal magistrate in WA.

Her ground-breaking career continued with last year’s government inquiry into child abuse in Aboriginal communities, which she conducted.

The University recognises Ms Gordon’s contribution to the community with her Honorary Doctorate, one of three to be conferred during the graduation season.

The 2002 team, along with the Wollongong team, was invited to represent Australia in the United States student racing car competition, against entries from 140 universities.

“Unfortunately,” said Terry Karunaratna, last year’s project coordinator, “we had to pull out of that competition as we did not have enough time to prepare the car to comply with the 2003 US competition rules.

“But it was a great effort and a terrific result and now there’s only one way to go’— up!”

The University and the Chamber of Automobile Industries WA are once again the major sponsors of the Motorsport project and challenge. UWAnews will keep you up to date with their progress during the year.

The UWA racing car at its launch late last year attracted a lot of media attention

Partners publish

While conservation of the environment has been under the spotlight for decades, local researchers have only recently drawn together new information to support conservation programs.

The preservation of plant biodiversity is the subject of a unique partnership between UWA’s plant biologists and Kings Park staff.

This collaboration was highlighted at the launch of their joint book in Kings Park last month, *Microorganisms in Plant Conservation and Biodiversity* was edited by UWA’s Professor of plant pathology, Krishnapillai Sivasithamparam, and Kings Park staff, plant conservationist Kingsley Dixon and research botanist Russell Barrett.

The book was launched by Environment Minister, Dr Judy Edwards.

Sue Gordon — Honorary Doctor of Letters

The other two are being awarded to Tony Howarth (Honorary Doctor of Laws) and Robert Paton (Honorary Doctor of Surgery).

More than 2,300 graduands will take to the stage in Winthrop Hall, over seven ceremonies, the last of which is on April 3.

The 2,361 degrees awarded include 71 PhDs. Once again, the most graduates from one faculty come from the Faculty of Economics and Commerce, with 357 Bachelors of Commerce being conferred.

Also graduating are 249 engineers, 96 medical doctors and 131 lawyers.

Watch out for more graduation stories in the next issue of UWA News.
Economics
a risky business

The events of September 11, 2001, ushered in a period of economic, financial and political instability, and created an even bigger challenge for two PhD students in economics.

Suhejla Hoti and Felix Chan are undertaking leading edge research in modelling financial volatility, or risk, at the international level.

Both students shine in their chosen field, and have won international awards for best student papers and presentations, have published in leading international journals, and have presented their research work at prestigious institutions and universities in Australia, New Zealand, Europe and Asia.

Felix Chan is supervised by Professor Michael McAleer, who also advises Suhejla Hoti, her supervisors being Professor Ken Clements and Professor Les Oxley (Head of Economics at University of Canterbury and Adjunct Professor at UWA).

"Felix and Suhejla would have to be among the best PhD students at UWA in terms of international awards, seminar and conference presentations, and journal publications," Professor McAleer said.

Suhejla, originally from Albania, and in her final year of her PhD research, is working on modelling country risk ratings.

"After the events of September 11, 2001, the risks associated with engaging in international financial operations have increased substantially, and become more difficult to measure for decision makers in the economic, financial and political sectors," Suhejla said.

"Political considerations are a very big part of modelling country risk," she said.

Felix Chan's thesis is an econometric analysis of intellectual property, or creations of the mind. Originally from Hong Kong, and about half-way through his PhD research, Felix took up Professor McAleer's suggestion of examining the econometrics of intellectual property, particularly patents, and investigating the effects of such innovations on the financial market, economic growth, technical change, and factor productivity.

"Patents are an indication of a country’s technological capability and intellectual property," Felix said.

In a recent joint paper with Professor McAleer and Dr Dora Marinova (Murdoch University), Felix has analysed the patent shares of the major foreign countries in the USA using sophisticated time series techniques.

"With the world’s biggest economic market, the USA has always been a magnet for registering patents by innovative local and foreign companies," he said.

His thesis is the first to provide an econometric analysis of intellectual property, particularly patents, using novel time series methods.
The health of the computer system at UWA is dependent on regular doses of RAV AntiVirus.

Twice a day, the system scans the RAV central database in Romania for the latest virus handlers, and downloads any new ones.

Marie Corrigan, manager, University Communications Services, said UWA’s Information Technology Advisory Group decided to acquire the RAV system about a year ago, as the University became more and more dependent on email.

“Right now, the University receives about 80,000 emails a day and around 45,000 emails go out from us. That doesn’t include intra-campus emails.

“Email in and out of UWA and between most UWA subnets is redirected via a machine called asclepius.uwa.edu.au where RAV will inspect the contents and disable any viruses it finds,” Ms Corrigan said.

She explained that when an email with an attachment is coming in, it is scanned for virus ‘fingerprints’. If it has a virus, RAV removes the attachment and sends on the rest of the email.

“We tried sending a second message to the receiver explaining about the virus, but discrepancies in the arrival times of the original message and the explanatory message caused confusion,” she said.

“So now, if an attachment has been found to have a virus, you will just get the sentence: ‘RAV AntiVirus has deleted this file because it contained a dangerous code!’

“If anybody at the University is concerned about not receiving the stripped attachment, we can let them have it on a disc,” Ms Corrigan said. “But nobody has expressed that concern to us yet.”

She said hoaxes were a big problem, especially the ones that warned receivers to ‘tell everybody on your mailing list’.

UCS has a website where you can check hoaxes and scams before you consider telling everybody about ‘this terrible virus’. It’s at: www.ucs.uwa.edu.au/web/info/ucs/viruses

The biggest number of viruses removed from UWA emails in one day was 8,372 on Thursday October 3 last year. October was a particularly bad month for viruses, with more than 4,000 being removed on some other individual days. But, usually, an average of 1,000 viruses a day are removed.

Ms Corrigan said RAV AntiVirus cost UWA $11,000 for the software and we pay an annual maintenance fee of $1,100. The University is also part of AusCERT, the national Computer Emergency Response Team for Australia and New Zealand. AusCERT maintains a trusted network of computer security experts around the world and provides prevention, response and mitigation strategies for its members, which include all the universities in Australia and New Zealand.

If you would like to know more about how the email filtering system at UWA works, from the point of view of the ordinary email user, you can go to: www.ucs.uwa.edu.au/web/info/ucs/viruses/filtering

Despite a rigorous system, there is still the opportunity for viruses to be spread.

“At this stage, we scan or filter attachments to emails, but, over the past year or so, there has been an increasing incidence of viruses picked up from Websites, when the user downloads something,” Ms Corrigan said.
Research leader a rare choice

Research fellow Vera Morgan is carrying the flag for UWA research staff.

She has recently been appointed the President-elect of the Australasian Society of Psychiatric Research (ASPR).

Ms Morgan, from the School of Psychiatry and Clinical Neurosciences, is the society’s first non-professorial appointment. She is also the first Western Australian to be elected to the chair and only the second woman to take the position.

A member of the executive of ASPR since 1999, Ms Morgan takes over the leadership of the society in December, for three years.

Her election is seen as a coup in a field that is male-dominated, both at the clinical level and within the executive of the ASPR.

“But ASPR is a really interesting exciting organisation,” Ms Morgan said.

“It was started in 1978 by a group of psychiatrists, who wanted a broader and stronger base so they included non-clinicians working in psychiatric research in Australia (later extended to New Zealand) and so they included researchers from many disciplines.

“The annual conference is always a multi-disciplinary affair, with psychiatrists, psychologists, statisticians, epidemiologists, neuroscientists, geneticists, health economists and others coming together to report on their most recent work, to stay abreast of developments in their own and related fields, to strengthen old collaborations and to develop new ones.

“Funding bodies such as the National Institutes of Health in the US are starting to place greater emphasis on multidisciplinary collaborative research rather than the old model of specialist scientists working in isolation. Yet multidisciplinary collaboration has been the underpinning ideology of ASPR since its inception.”

With a social sciences background, including statistics and law, Ms Morgan is now a psychiatric epidemiologist, whose current research concentrates on the psychiatric illnesses of schizophrenia and bipolar disorder.

Ms Morgan’s main methodology uses the linked data from the State Government’s Department of Health.

“It's a very rich data source. Registers are without doubt some of the most powerful repositories of longitudinal data for epidemiological research.

“I am currently working on several register studies including: reproductive pathology in mothers with a psychotic disorder (schizophrenia, affective psychoses) compared to unaffected mothers, and outcomes for their offspring over time; criminal offending by individuals with a psychiatric disorder compared to those without a psychiatric history; and the comorbid intellectual disability among persons with a psychiatric disorder.

“One in five Australians have had a mental health problem over the past 12 months, and mental disorders are estimated to contribute to 19 per cent of the total burden associated with disease in Australia.

“As president of ASPR, I will be working hard to ensure that funding for psychiatric research is increased,” she said. “Mental health research receives only nine per cent of the NHMRC funding dollar.”

Ms Morgan also expressed a strong interest in work-related issues faced by research staff in universities. “These people play a critical role in our research centres and laboratories. I hope my new position will give me an opportunity to look at better ways of supporting these staff and improving their employment conditions.”
Connecting to India and beyond

Australia sits on the edge of the Indian Ocean but, politically, commercially and educationally, turns its gaze north and east.

Political geographer Dennis Rumley is working away at changing the perspective, encouraging greater Australian involvement in the Indian Ocean.

Associate Professor Rumley has recently returned from three conferences in India, the prime objective being the launch of a new Indian Ocean Research Group.

The IORG aims to bring the member states together regularly and initiate research programs to enhance the stability of the region, along with ecological sustainability.

Policy-oriented research on topics including terrorism, the impact of colonialism, and each state’s geopolitical position (how they see themselves) will be studied to help achieve a cohesive union.

“...Before we can build a cohesive group, the bilateral links must be strong. So Professor Sanjay Chaturvedi, from Panjab University, and I have been working on strategies to strengthen links between Australia and India,” Professor Rumley said.

Professor Chaturvedi and Professor Rumley are the forces behind the IORG, which was launched at a conference in Chandigarh. Australia’s High Commissioner to India, Penny Wensley attended the launch, as did geographer and UWA’s curator of maps, Dr Viv Forbes.

“In India, Australian Studies is a popular subject, but in Australia, Indian studies are running right down. We are looking at setting up postgraduate studies to address this.

“And then there’s trade between the two countries. It is almost minimal, yet India is a huge country with massive markets. But our trade relationship is no better than it was in the 1930s.

“We need to work on the notion of Australia looking west and India looking east. We are yet to impact because we tend to miss each other!” he said.

This was confirmed at a conference on India-Australia relations in Delhi, which Professor Rumley also attended. Commissioner Wensley told the conference that, when India looked at its neighbours, it seldom looked eastward, beyond the Indian Ocean to Australia.

At the third conference, a two-day seminar on globalisation and political economy of north-west India, Professor Rumley was the guest of honour, and spoke about Australia’s growing interest in the fast-growing Indian economy.

While working on the relationship between India and Australia, Professor Rumley is still keen to get all the Indian Ocean states working together.

“We are hoping to have our annual meeting at the end of this year in either Africa or Iran. There are a lot of voices in the Indian Ocean that are not heard. We are particularly keen on African involvement, but money is always a problem for the African states.

“If we can meet in Africa, it makes it easier for them to be there.”

There is more information about the Indian Ocean Research Group at http://www.iorg.puchd.ac.in/
The words ‘racing car’ and ‘crash’ are often uttered in close proximity.

But Dr Stuart Bunt, senior lecturer in Anatomy and Human Biology, insists that his Personal Passion, building and driving racing cars, is not a dangerous hobby.

“At Wanneroo, where I race, the track is so curvey that it is impossible to get up to speeds of much more than 150kph. We have roll bars, helmets, full fire-proof suits, and the driver and the car are inspected by safety officials before every race,” Dr Bunt said.

But it still fulfils his love of speed, competition and excitement.

Dr Bunt drives a Westfield in the Marque Sports C class, in which he and other drivers can make just about whatever internal modifications they want to engine, brakes and wheels, but the body must stay looking pretty much original.

Racing about once a month since 1997, Dr Bunt is currently building a new racing car in his garage at the race track and hasn’t been on the track for many months.

New racing car drivers must take lessons (“more about what the flags mean, racetrack etiquette and what to do in an emergency rather than driving skill lessons”), pass a driving test at speed on the circuit and become a licensed racing driver before they can take part in competitive races on the track.

“Once you do it, you realise how hard it is to drive seriously fast. You’re literally at the edge of crashing all the time. But circuit racing is actually more about precision than hooning along at high speeds. The winner is the driver who can drive just this side of spinning off, every lap, knowing just how fast, and on what line, to take corners and bends without coming off the track,” he said.

Dr Bunt has never won a race — he competes in a mixed class, driving alongside much bigger and more powerful cars with up to 550hp at their disposal. But he came fourth in the state championship in his first season, in 1998.

His worst injury has been a dislocated finger when another car hit him from the side and spun the steering wheel out of his hands, catching his finger as it went.

“I’ve been hit from the side, from behind, from in front and even had another car run right over the top of me,” he said.

“But to go fast you have to keep cool and calm, in the midst of all the noise and dust and heat and speed.”

It doesn’t sound like the most relaxing of passions, but Dr Bunt says the concentration needed means he can’t think about work, family or anything else. So, in a way, it is relaxing!

He said he learnt to fix his own cars as a starving student in the UK. “Made for the Mediterranean climate, older Alfas didn’t last too long in England, so they were the best cheap cars to buy. I learnt to weld so I could fix the body as well as the engine. Our family of four drivers now has four Alfas, three of them brought out from Scotland, and I work on them all.”

Motor racing may not be the most ecological sport, but to make up for the petrol he uses while racing at Wanneroo, Dr Bunt rides an economical motor bike to and from the University.
ONCE UPON A TIME there were some curious men and women. They were curious about their curiosity.

They began to talk amongst themselves and to think. They enjoyed that. They began to teach each other and to learn from each other and to think and test new ideas. And their numbers grew and their little community flourished. But it was sometimes very hot just talking and thinking and teaching and learning and testing new ideas and so they all agreed to meet under shady olive trees and form an academy to better pursue their love of knowledge and understanding. So was born the groves of academe.

As time went by, their fame spread and many came to seek their advice on all manner of things. With their great knowledge and understanding they were useful to people around about them, to commoners and princes alike. Princes, bent on becoming kings, gave them gifts and privileges and so gained control over them. They cut down their olive trees and built them great buildings. And religions, bent on becoming God’s chosen religion, did likewise; they built them great buildings and gained control over them. Academies flourished in size and strength and importance but not always in independence of thought, wisdom and curiosity; though who could know at the time. But gradually some very curious men and women began to think beyond the bounds of princes and religions. Academies fomented with great and new thoughts: a renaissance of ideas. Princes and religions lost interest and control; wisdom and understanding triumphed. But the academies suffered too. With dwindling princely and religious support, their buildings fell into disrepair.

After many years an enlightened government, bent on becoming The Government, came to their aid and built new and yet greater buildings and so gained control over them. Government promised eternal growth and directed all able and near-able minded, HECS-extractable, commoners to process through the academies. They even searched far-off lands for more fee-extractable commoners. The commoners, (students or clients) were offered marvellous inducements to process through the academies. They were issued with diplomas, degrees and certifications, bits of paper that miraculously guaranteed knowledge and wisdom and superiority for the job market. Government, ever wise, then granted academies the greatest gift of all, the business and management ethos; core business, benchmarking, best practice; a wondrous package of intellectual advances.

Government, ever benevolent, then withdrew its support in favour of the ultimate benefactor, corporate business. Corporate business gained control and academies flourished yet again. Buildings, shops, cafeterias, taverns, hairdressers, pharmacists, private schools, retirement villages, entertainment centres and all manner of vital commercial distractions proliferated: another golden age of building and expansion. And business stimulated some very clever men and women to seek new ways of operating the academy. They discovered that talking and thinking and teaching and learning were more cost effective if conducted by little electrons spinning in little pieces of wire and crystals and semiconductors, all mixed up in a tangled web: a great and, at the time, unrecognised self destructive breakthrough.

So business forsook the academy and transferred its attention to the little electrons spinning in the tangled web. So was born the virtual academy. Clients also transferred their allegiance to the little electrons of the tangled web. They were still offered the inducements of diplomas and degrees and certifications and found they could still find cafeterias, and taverns and hairdressers and pharmacists and banks outside of the academy. Everyone was happy. Almost everyone. But the academicians and the great buildings of the academy all fell into disuse and disrepair. They became dusty and dirty and damaged. Gradually they crumbled, dust to dust and ashes to ashes.

Only spirit remained, echoes of curious men and women, shades of seekers of knowledge and wisdom. Spirit retained and encapsulated perchance in a small olive pip. A small olive pip spat out by a client in search of the great new web of knowledge. A pip that one-day will burst forth and send tiny roots into the crumbled, building-fertilised soils of the old academies. A small plant that will seek the sun and mature into a shady tree. A shady tree that will wait in hope for the return of those curious men and women and the groves of academe.
Raising awareness of researchers

Research staff hard at work ... and taking a break

These research staff took advantage of a professional development program designed especially for them.

Raising Research, a project run throughout last year by Organisational and Staff Development Services (OSDS), targeted research-only staff who otherwise rarely take advantage of staff development opportunities.

Jacquie Adams, program co-ordinator for research, said the program aimed to address this group’s professional career development.

“Thirty research staff undertook to journey together learning new skills, identifying and working on issues and concerns, networking and developing a mentoring program,” she said.

“It was very successful, the staff were most appreciative and, most importantly, the program will be run again this year.”

Research Route (a component of Raising Researchers) is run on similar lines to the Leadership Development for Women program, with a core workshop, skills workshops throughout the year, information sessions and a mentoring network.

Research enrichment programs are also available through the project. More information can be found at: www.uwa.edu.au/raisingresearchers/ or contact Jacquie Adams on 9380 1502 or at jadams@admin.uwa.edu.au

AUSTRALIAN SENATE
The Richard Baker Senate Prize

The President of the Australia Senate, Senator the Hon. Paul Calvert, invites entries for the Richard Baker Senate Prize, valued at $3000, for the best essay, article, thesis, dissertation, book or piece of journalism (in any medium) relating to the work of the Australian Senate. There are no residential, age, or other restrictions on eligibility for the prize. Entries may be submitted by their authors or nominated by any other person. Entries for the prize must be submitted by 31 July 2003. Details of entry conditions may be found at http://www.aph.gov.au/Senate/dept/index.htm

For further information contact
Wayne Hooper, Director, Research Section,
Department of the Senate, Parliament House, Canberra, ACT 2600
PHONE 02 62773078 or EMAIL wayne.hooper@aph.gov.au

Raine Visiting Professorships
Closing Date 30th May 2003

Nominations are invited for Raine Visiting Professorships for 2003/2004 with a closing date of 30th May 2003. All Schools in the University may now nominate for Raine Visiting Professorship Awards. These awards facilitate the visits of distinguished scholars to the University for the purpose of advancing medical research. Two categories of Visiting Professorship are offered: long-term visits fully funded by the Raine Foundation (Category 1 Professorships) and short-term visits funded on a shared basis with the host School (Category 2 Professorships).

Nominations are invited each year in February and July and up to three awards may be offered in each round. A copy of the Conditions and Nomination Form are available from the Raine administrative office or the web site as detailed below.

http://www.raine.uwa.edu.au/visit/

RAINE MEDICAL RESEARCH FOUNDATION, Suite 24, Hollywood Specialist Centre, 95 Monash Avenue, Nedlands, WA 6009
Telephone: 9386 9880 Fax: 9386 9522
Email: joanna.thompson@uwa.edu.au

Research Grants & Contracts will feature in each issue of the UWAnews. Any queries about the research grants published in this issue should be directed to the Research Grants Office, ext. 3702.
WEEKDAY MASS
5.15pm, Mon to Fri: St Thomas More College chapel. Catholic chaplain (ext. 2405).

Monday 24 March
PLANT BIOLOGY SEMINAR
‘Pythium diseases of carrots in Australia’ Dr Elaine Davison, 4pm, Agricultural Lecture Theatre.

Tuesday 25 March
SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘Biological laboratory safety’, Sylvia Lachberg, Safety and Health Office. 4pm, Agriculture Lecture Theatre.

Tuesday 25 March
ANATOMY AND HUMAN BIOLOGY SEMINAR
‘From centimetres to nanometres: flexibility in microscopy’, Dr Peta Clode. This seminar will highlight the wide range of structural, chemical and physiological data that can be collected, from a gross level to the nano-scale, using microscopical techniques in the biological and life sciences. Capabilities of new state-of-the-art facilities at the Centre for Microscopy and Microanalysis will also be presented. 1pm, Room 1.81, First Floor, Anatomy and Human Biology. Contact: Debbie Wright, 9380 3290, dwright@anhb.uwa.edu.au.

Wednesday 26 March
PUBLIC LECTURE
‘Experimental islands’, Professor Gillian Beer, Cambridge University. In this lecture, Gillian Beer will combine discussion of the problems of founding a population on islands in both actuality and fiction, and how the concept of the island has influenced political thinking and evolutionary theory. 6pm, WA Museum Foyer, James Street Perth. Proudly presented by Institute of Advanced Studies, UWA and MuseumLink. No cost but bookings essential. Call Institute of Advanced Studies on 9380 2020.

Thursday 27 March
CHEMISTRY SEMINAR
‘Glycoside hydrolase inhibitors: the synthesis of a glucose-like tetrahydro-1,2-oxazine, piperidine and 1,5-pentono lactam, and glucosylated analogues’, James Macdonald. 5.15pm, Simmonds Lecture Theatre.

Friday 28 March
MICROBIOLOGY SEMINAR
‘Food, shelter—but no water?’ Prof Philip Weinstein, School of Population Health. 1pm, Microbiology Seminar Room 1.1 (MSR), First Floor, L Block, QEIIIMC.

Monday 31 March
PLANT BIOLOGY SEMINAR
‘Cool season grain legumes in dryland environments: species by environment interactions’, Prof Kadambot Siddique. 4pm, Agriculture Lecture Theatre.

Tuesday 1 April
SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘The rapid catchment appraisal process and its outcomes’, Don Cummins, Dept of Agriculture, Northam. 4pm, Agriculture Lecture Theatre.

Friday 4 April
CLIMA SEMINAR
‘Grain legume/animal nutrition interaction’, Dr Bruce Mullan, Dept of Agriculture, WA. ‘Pasture/animal nutrition interaction’, Dr Colin White, CSIRO. 4pm and 4.30pm, CLIMA Seminar Room.

Tuesday 8 April
PERTH MEDIEVAL AND RENAISSANCE GROUP TALK
‘Writing, painting and mercantile practice in Boccaccio’s Decameron’, Olivia Mair, English. 7.30pm, English, Communication and Cultural Studies, Ground Floor Staff Common Room, Arts Building G13/14.

SOIL SCIENCE AND PLANT NUTRITION SEMINAR

Sunday 6 April
LAWRENCE WILSON ART GALLERY TALK
A talk by Susan Norrie in relation to her exhibition ‘eddy: Susan Norrie’ opening at Lawrence Wilson Art Gallery on 6 April. 3pm, Lawrence Wilson Art Gallery. Contact: Janice Baker, ext. 3709, jbaker@admin.uwa.edu.au.

Monday 7 April
PLANT BIOLOGY SEMINAR
‘Evolution in action: plants evolving herbicide resistance. An overview of WAHRI research’, Prof. Steve Powles, 4pm, Agricultural Lecture Theatre

Monday 8 April
CLIMA SEMINAR
‘Grain legume/animal nutrition interaction’, Dr Bruce Mullan, Dept of Agriculture, WA. ‘Pasture/animal nutrition interaction’, Dr Colin White, CSIRO. 4pm and 4.30pm, CLIMA Seminar Room.

Monday 17 April
PLANT BIOLOGY SEMINAR
‘Pythium diseases of carrots in Australia’ Dr Elaine Davison, 4pm, Agricultural Lecture Theatre.

Tuesday 18 April
ANATOMY AND HUMAN BIOLOGY SEMINAR
‘From centimetres to nanometres: flexibility in microscopy’, Dr Peta Clode. This seminar will highlight the wide range of structural, chemical and physiological data that can be collected, from a gross level to the nano-scale, using microscopical techniques in the biological and life sciences. Capabilities of new state-of-the-art facilities at the Centre for Microscopy and Microanalysis will also be presented. 1pm, Room 1.81, First Floor, Anatomy and Human Biology. Contact: Debbie Wright, 9380 3290, dwright@anhb.uwa.edu.au.

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Thursday 27 April
CHEMISTRY SEMINAR
‘Glycoside hydrolase inhibitors: the synthesis of a glucose-like tetrahydro-1,2-oxazine, piperidine and 1,5-pentono lactam, and glucosylated analogues’, James Macdonald. 5.15pm, Simmonds Lecture Theatre.

Friday 28 April
MICROBIOLOGY SEMINAR
‘Food, shelter—but no water?’ Prof Philip Weinstein, School of Population Health. 1pm, Microbiology Seminar Room 1.1 (MSR), First Floor, L Block, QEIIIMC.

Monday 2 May
PLANT BIOLOGY SEMINAR
‘Pythium diseases of carrots in Australia’ Dr Elaine Davison, 4pm, Agricultural Lecture Theatre.

Tuesday 3 May
ANATOMY AND HUMAN BIOLOGY SEMINAR
‘From centimetres to nanometres: flexibility in microscopy’, Dr Peta Clode. This seminar will highlight the wide range of structural, chemical and physiological data that can be collected, from a gross level to the nano-scale, using microscopical techniques in the biological and life sciences. Capabilities of new state-of-the-art facilities at the Centre for Microscopy and Microanalysis will also be presented. 1pm, Room 1.81, First Floor, Anatomy and Human Biology. Contact: Debbie Wright, 9380 3290, dwright@anhb.uwa.edu.au.

Wednesday 4 May
PUBLIC LECTURE
‘Experimental islands’, Professor Gillian Beer, Cambridge University. In this lecture, Gillian Beer will combine discussion of the problems of founding a population on islands in both actuality and fiction, and how the concept of the island has influenced political thinking and evolutionary theory. 6pm, WA Museum Foyer, James Street Perth. Proudly presented by Institute of Advanced Studies, UWA and MuseumLink. No cost but bookings essential. Call Institute of Advanced Studies on 9380 2020.

Thursday 5 May
CHEMISTRY SEMINAR
‘Glycoside hydrolase inhibitors: the synthesis of a glucose-like tetrahydro-1,2-oxazine, piperidine and 1,5-pentono lactam, and glucosylated analogues’, James Macdonald. 5.15pm, Simmonds Lecture Theatre.

Friday 6 May
MICROBIOLOGY SEMINAR
‘Food, shelter—but no water?’ Prof Philip Weinstein, School of Population Health. 1pm, Microbiology Seminar Room 1.1 (MSR), First Floor, L Block, QEIIIMC.

Monday 9 May
PLANT BIOLOGY SEMINAR
‘Pythium diseases of carrots in Australia’ Dr Elaine Davison, 4pm, Agricultural Lecture Theatre.

Tuesday 10 May
ANATOMY AND HUMAN BIOLOGY SEMINAR
‘From centimetres to nanometres: flexibility in microscopy’, Dr Peta Clode. This seminar will highlight the wide range of structural, chemical and physiological data that can be collected, from a gross level to the nano-scale, using microscopical techniques in the biological and life sciences. Capabilities of new state-of-the-art facilities at the Centre for Microscopy and Microanalysis will also be presented. 1pm, Room 1.81, First Floor, Anatomy and Human Biology. Contact: Debbie Wright, 9380 3290, dwright@anhb.uwa.edu.au.

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AUSTRALIAN FEDERATION OF UNIVERSITY WOMEN (WA)

**SEMINAR**

**Bullying in Schools and Communities**

Focusing on recent research, resources and responses to the issue of bullying featuring outstanding key note presenters:

- Coosje Griffiths, Manager of Student Services, Department of Swan “The No-Blame Approach and School Experiences”
- Donna Cross, Associate Professor at Curtin University. “What Makes a Difference - New Evidence in Bullying and Prevention Reduction”

Highly recommended for all those interested in the emotional well-being of others in schools, tertiary institutions and the workplace.

**ST CATHERINE’S COLLEGE, STIRLING HIGHWAY, NEDLANDS**

**Tuesday 8 April**

8.30 a.m. for 9 a.m.–1 p.m.

$40 includes morning tea and lunch

Parking is available in Park Road, Nedlands. There is a three-hour parking restriction and you may prefer to travel on public transport.

For further information or to request a registration form please contact Karen Bothwell, Office Administrator on 9386 3570.

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**2004 Raine Priming Grants**

Closing Date: Monday 5 May 2003

Applications are invited for Raine Priming Grants in 2004, in accordance with the guidelines governing these awards.

The Grants provide funding for research into any area of medical science that investigates the nature, origin and cause of human disease, and the prevention, cure, alleviation and combating of such disease.

Grants shall be offered for a two-year period subject to annual review, and may be used to provide funding, or part funding, of salaries for researchers and/or technical staff, minor equipment, and consumables.

The research shall be carried out at, or in association with, The University of Western Australia.

**Guidelines and Application Forms are available from:**

Raine Medical Research Foundation
Suite 24, Hollywood Specialist Centre, 95 Monash Avenue, Nedlands, WA 6009
Telephone: 9386 9880  Fax: 9386 9522  Email: raine@raine.uwa.edu.au or the Internet at: www.raine.uwa.edu.au/grants

Application Forms must be received at the above office no later than Monday, 5th May 2003 at 5.00p.m.

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The University welcomed:

Deborah Allen, assistant disability officer, Student Services
Jeffrey Blenkins, bureau officer, Administrative Services
Milka Bukilic, administrative assistant, Vice-Chancellor
Marc Cartwright, research assistant, Plant Biology
John Coker, Library Officer
Dr Kerryn Coleman, research associate, Population Health
Amanda Cross, graduate research assistant, Psychiatry and Clinical Neuroscience
Paul Damon, research officer, Earth and Geographical Sciences
Elizabeth Devine, CSSD assistant, Oral Health Centre of WA
Dr Patrick Garratt, senior lecturer, Primary, Aboriginal and Rural Health Care
Robert Glass, system administrator, Admin Computing Services
Joanna Granich, graduate research assistant, Population Health
Carmel Hancock, medical laboratory assistant, Biomedical and Chemical Sciences
Gabrielle Harvey, graduate research assistant, Psychiatry and Clinical Neuroscience
Dr Du Quan Huynh, senior lecturer, Computer Science and Software Engineering
Ilona Kelemen, dental clinic assistant, Oral Health Centre of WA
Simon Kobelke, graduate research assistant, WA Institute for Medical Research
Jennifer Leathy, laboratory technician, Biomedical and Chemical Sciences
Marian Merga, library officer
Dr Kevin Murray, senior lecturer, Paediatrics and Child Health
Pamela Nicol, lecturer, Paediatrics and Child Health
Jane Oakley, receptionist, Oral Health Centre of WA
Sarah Parriman, administrative assistant, Indigenous Studies
Jessica Pore, graduate research assistant, WA Institute for Medical Research
Sarah Pye, graduate research assistant, WA Institute for Medical Research
Ramprasad Ramani, visiting appointment, Graduate School of Management
Julijana Sarich, graduate research assistant, WA Institute for Medical Research
Pia Savage, personal assistant, Library

RAINE VISITING PROFESSORS’ LECTURE SERIES

**Professor Thomas Buchanan**
Director, Center for Biomedical Engineering Research and
Academic Director, Biomechanics and Movement Science Program
University of Delaware

will present a Raine Lecture entitled:

**Using biomechanics and magnetic resonance imaging to understand the anterior cruciate ligament injured knee**

on Friday 11th April 2003 at 1.00pm

in School of Human Movement and Exercise Science Lecture Theatre

**ALL WELCOME**

Professor Tom Buchanan is a biomedical engineer and neuroscientist at the University of Delaware, and Director of the Biomechanics and Movement Science Program. He is also Editor-in-Chief of the Journal of Applied Biomechanics and on the editorial board of the Journal of Biomechanics. He has been a reviewer for over 25 journals in the fields of rehabilitation, biomechanics, and neurophysiology, and was Program Chair for the 1999 annual meeting of the American Society of Biomechanics.

After graduating in Applied Mechanics and Engineering Sciences at The University of California, San Diego, Professor Buchanan completed his doctoral degree in Theoretical and Applied Mechanics at Northwestern University, followed by a Fellowship at Massachusetts Institute of Technology in Brain and Cognitive Sciences. In 1989 Professor Buchanan was appointed Associate Director of the Sensory Motor Performance Program at the Rehabilitation Institute of Chicago during which time he concurrently held a Faculty appointment at Northwestern University in the Departments of Physical Medicine and Rehabilitation and Biomedical Engineering. In 1996 Professor Buchanan joined the Department of Mechanical Engineering at the University of Delaware where he is now Director of the Center for Biomedical Engineering Research.

Professor Buchanan’s research is on topics related to arthritis, stroke, and other neuromuscular and musculoskeletal disorders. He is known for his studies of the neural control of synergic muscles and his EMG-based biomechanical models to estimate muscle forces. His current studies involve the use of cine phase contrast MRI to examine in vivo joint kinematics and kinetics, functional electrical stimulation to help patients with neuromuscular disorders to regain their ability to walk, and rehabilitation robotics to re-train patients to use their muscles following stroke.

**Departmental Host: Lyn Ellis**
Dr David Lloyd Raine Medical Research Foundation, School of Human Movement and Exercise Science
Telephone: 9386 9880 Telephone: 9380 3919
Email: lellis@raine.uwa.edu.au and dlloyd@cyllene.uwa.edu.au

**Classifieds**

**FOR SALE**

**DESK.** University-made cream melamine desk with Jarrah trim. 150 cm x 80 cm. Matching heavy duty board with Jarrah frame. $140 ono. Contact Kate on 9380 3703 or 9364 1118 or email kkirk@admin.uwa.edu.au.

**LOST**

**MACINTOSH IPOD, white and silver with white earphones attached. Lost in the vicinity of the UWA Boatshed on Tuesday 8th March at around 5.30 pm. Its return would mean much to its owner. Reward offered. Phone Pauline on 9444 6120 or 0417 947 381**

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<th>COND.</th>
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<td>In-house designed/built variable-speed precision saw (for parts only)</td>
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<td>CMM</td>
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**Redundant Equipment for Sale**

Bids should be accepted by Monday 7 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.**