by Lindy Brophy

Gypsies, a minority population discriminated against for so long in Europe, are the focus of on-going genetic research aimed at unlocking the secrets of diseases that affect us globally.

Geneticist Professor Luba Kalaydjieva came from Bulgaria (a country with a large gypsy population) to the Western Australian Medical Research Institute several years ago, and has continued her research into the Roma (gypsy) people, whom she regards as a precious resource.

"Gypsies are a founder population, that is they are derived from a small number of ancestors, and have subsequently remained relatively isolated from surrounding populations. The resulting limited genetic diversity makes it easier to find the genes responsible for all sorts of diseases; easier than using a heterogenous population," Professor Kalaydjieva said.

"They defy the conventional definition of a population: they have no nation-state, speak different languages, belong to many religions and comprise a mosaic of socially and culturally divergent groups, separated by strict rules of endogamy.

"So, in that way, they are rather different from other founder populations, such as the Finnish people, the Ashkenazi Jews, the old order Amish people, and..."

The name gypsy is a misnomer, derived from an early legend about Egyptian origin, but the Roma people originated in India, before settling in Eastern Europe. These Roma are street performers in Prague.
the population of Quebec. But these people too are valuable resources for genetic research.

“Some of the best geneticists in the world are Finnish and Jewish and they have a huge and successful program of screening for a comprehensive list of diseases common in their populations.

“But unlike those wealthy founder populations, the Gypsies are marginalised and discriminated against. And the research that can help their health is done by people like me, outsiders.”

Professor Kalaydjieva was head of a diagnostic laboratory in Bulgaria, doing newborn screening and other diagnostic testing for genetic diseases. She started to see differences between ethnic groups, and the Roma people took her attention as she found that they had some diseases that were unique to them, while they often did not suffer diseases found in the wider population.

Since then, she has concentrated on them, working on identifying genes that cause diseases specific to their population.

“When I started 12 years ago, there was nothing. We are now putting together a list of over 15 different genetic diseases and mutations that are worth testing and screening for among gypsy people.

“They include infantile cataracts and blindness, caused by an intolerance of milk; immunity problems; blood clotting; and some disorders that affect the peripheral nerves. This work is already applied by diagnostic centres across Europe and has helped many couples, where both partners are carriers of the same disease-causing mutation, to have healthy children.”

Professor Luba Kalaydjieva with some of the members of the Gypsy Genetic Heritage Consortium in Paris, a few years ago. The wheelchair-bound gypsy suffering from limb-girdle muscular dystrophy has since died.

She frequently visits Europe where, in the early days of her research, she did a lot of fieldwork.

“It was very rewarding. When we discovered the gene that was responsible for a problem with peripheral nerves, we went back to the people who had helped with the research, and they were delighted. They wanted us to start testing them straight away.”

This particular genetic mutation causes a numbing of senses. It starts with weakness of muscles and an inability to feel pain, and eventually, the sufferer is unable to walk, and loses the use of his/her hands. Deafness can also eventuate.

“So you can see why the older people especially were so keen to have their young people tested, to prevent the disease being passed on.”

She said while there might be only 200 people in the world suffering from this particular disorder, her team’s identification of the gene had become a model for studying a whole range of problems with the peripheral nerve system.

There are between eight and 10 million European gypsies but probably only 200,000 Roma people in Australia, although there is no accurate census data.

“But Australia isn’t funding our research (the team has had a variety of ARC, NH&MRC and Wellcome Trust grants) because the government or funding agencies are particularly interested in European gypsies. It’s because our findings are so helpful to all populations.

“The big killers are the same in every population — TB, cancer, diabetes, cardio vascular disease – and a founder population narrows down our search for the genetic markers for these as well as the lesser or more rare disorders in the specific population.”

Professor Kalaydjieva’s team has recently attracted NH&MRC funding to look at bipolar disorder (formerly known as manic depression). “There have been two decades of hard work around the world, but it is a particularly difficult disorder to track. We will have a greater chance of identifying the genes in the gypsy population.”

They will also start work soon on epilepsy. “This and bipolar disorder are both ranked high on the economic list of global disabilities.

“The Roma people are our magnifying glass – the perfect tool for identifying and fighting conditions that affect people across the globe,” she said.
University scientists are working to save another lake in Africa, this time in Burkina Faso.

Last month, as a team from the Centre for Water Research was preparing for hydraulic testing of Lake Victoria, in central Africa, scientists from the Centre of Excellence in Natural Resource Management (based in Albany) returned from Africa, with plans to restore a dying lake in Burkina Faso.

Burkina Faso is one of Africa’s poorest nations supporting more than 14 million people in a land-locked area only four percent of Australia’s landmass.

Director of the Centre, Professor Peter Davies, said a member of the International River Foundation had asked the Albany group to give scientific advice on a lake that supports up to 10,000 people, which is drying up.

“The lake appears to be silting up,” Professor Davies said. “All the people who live around it depend on it for their water supply. If it dries up completely, they will have no choice but to move elsewhere. Those who are unable to walk the distance will face considerable hardship.

“It’s a small project, compared with some, but a very worthwhile one.”

He said the build-up of sediment in the lake was probably caused by overclearing and livestock in the catchment.

“In Australia, the solution would be simple. We would tell the farmers to destock and to fence off the shore. But we can’t do that here. You can’t tell African farmers to get rid of their cattle, and nobody has money to build fences.

“The lake, which is about 20 kilometres long, may need to be dredged. We’ve done the science, now it’s a matter of work on the ground, and we’re communicating with international aid agencies to arrange for that work to be done.”

Professor Davies said the project in Burkina Faso was the International Water Centre’s first overseas job (the Centre is a collaborative between UWA, University of Queensland, Monash University and Griffith University). They enlisted the support of Israel, the 2003 Thiess International Riverprize winner, to help them with the initial assessment and with the logistics of working in this remote region of Africa.

“We have done a lot of restoration of waterways in Australia, but that work has been to restore ecological health.

“What makes this project different is that it is not just the environment we’re trying to save, but the lives of the people who depend on the lake.”

The International River Foundation funded the $100,000 initial scientific assessment, and Professor Davies said the Foundation was very happy with the advice given them.

“We are now pushing for a further $300,000 to get the earthworks done to restore the lake.”

He said there had been a lot of rehabilitation done on waterways in Africa that did not have any scientific base. “Our advice is based on good quality science, and, even though the problem will probably recur, this is the best way to deal with it.”

The shores around the lake used to support elephants and water buffalo and other native animals, but Professor Davies says they are mostly now all gone.
Vice-Chancellor's column

Staff our focus at UWA

At The University of Western Australia our highest priority is to recruit, develop and retain the highest quality staff.

Our employment conditions and policies are directed to achieve this priority. They are developed and implemented within a framework of meeting institutional objectives and strategic outcomes to meet our mission of serving the State and the community. Importantly they are aligned with the needs of individual staff members both professional and academic in a spirit of goodwill, cohesiveness and cooperation.

It is disappointing that in the current debate on industrial relations within higher education the very essence of the nature of employer-employee relationships are seemingly ignored with most comment being simplistic, superficial and drawing anecdotally on how the sector was more than a decade ago.

There is a real lack of understanding of conditions of employment in Australian universities. It should be known that talented staff are rewarded by rapid promotion and salary progression and loadings that reflect market forces and performance. These arrangements are university-wide arrangements.

The academic promotion system at The University of Western Australia represents a very vigorous and robust form of performance management that rewards high achievers.

Salaries within Australian universities have fallen against average weekly earnings due directly to inadequate indexation of government funds. This ongoing situation is a threshold issue that continues to contribute to the ability of the sector to deliver premium salary outcomes. The government’s proposed higher education workplace reform requirements do nothing to address this fundamental concern.

Where a genuine understanding of the importance of staff to achieving the ambitions of the University is evident, and there is a constant dialogue, any issues of mutual concern are quickly recognised.

Human Resources on behalf of the University is currently analysing the Federal Government requirements and will take steps to ensure that the University meets these requirements in order to maximise the University’s receipt of Commonwealth Grant Scheme funding.

We will continue to focus on creating a working environment that maximises the returns from productive partnerships between the University, as an organisation with obligations, and our professional and academic staff.

Alan Robson
Vice-Chancellor

A moot point

When a member of UWA’s Jessup Moot team jumped into a taxi in Washington with some other competitors, he understood just how high a reputation UWA Law School had.

“When I told them I was from UWA, they were very impressed. We have done so extraordinarily well at Jessup Moot in recent years, that they were a bit in awe of me!” said Eric Heenan, one of five senior law students who gave up their summer break to work on their entry in the prestigious international law competition.

The team, which came second to the University of Queensland in the national finals earlier in the year, went to Washington over Easter to take part in the international competition between 105 teams from 84 countries.

They were ranked first after the preliminary finals, but met UQ again, and went down to them. UQ finished up winning the international finals and UWA came third.

Eric is in his final year of a graduate Law degree. Other team members were Andrew Nicol, who this year is doing the fourth year of a five-year combined degree; Tessa Kahn, who has taken a year off before completing her final year of Law; David Lee, who is doing Honours in Arts this year and will complete his degrees with Honours in Law next year; and Rachael King, who is in her final year of Law this year.

The problem this year involved laws of the sea and a shipment of nuclear material.

Eric said his earlier degree is Physics came in handy and Andrew said the units he’d studied in philosophy were helpful for constructing arguments.

“But, although I’m interested in international law, Jessup Moot makes you very conscious of the limits of international law,” Andrew said. “It’s not always very helpful in solving current political problems.”
The sense of mystery created by the aroma of sandalwood is matched by the puzzle of how the wood is created.

Scientists from two faculties have joined with industry partners in an ARC linkage project to unlock the secrets of the aromatic timber.

Associate Professor Julie Plummer, from Plant Biology, and Associate Professor Emil Ghisalberti, from Biomedical, Biomolecular and Chemical Sciences, and their PhD student, chemist Chris Jones, have linked up with the Forests Products Commission (FPC) and the Department of Conservation and Land Management (CALM) to explore ways in which to advance the sandalwood oil industry in WA.

They are looking at breeding and selection of trees to try to discover which plants have the better oil production. In addition they are exploring the natural biosynthesis of the oil in the tree.

“Surprisingly, we know very little about the biochemistry of wood and how wood products like oils are made,” A/Professor Plummer said. “But modern biochemistry and molecular biology give us new tools to find out. Chris, who completed a postgraduate diploma with us, is using his chemistry background to investigate the biosynthetic pathways in sandalwood trees. Are the oils only synthesised in the wood, or does it start in the leaves?”

The team is studying variation in oil composition between trees. “FPC in Kununurra has stands of mature sandalwoods of different varieties, from different countries,” A/Professor Plummer said.

“We are assessing the yield and composition of the oil from different trees, as well as a molecular genetic analysis. We hope this will eventually enable us to select the best oil producing trees, help FPC to breed them, and manage them for the best results.

“When we understand what affects oil production, there may be impacts on how the trees are grown.”

Harvesting of Western Australian sandalwood that grows wild in the Goldfields (Santalum spicatum) is under strict control by CALM and the UWA research is focussing on the faster-growing Indian varieties of the tree, to provide an alternate industry to harvesting of natural stands.

The Indian variety (Santalum album) is three times as rich in the aromatic essential oils used in cosmetics and incense. It has a ready market in Asia.

Indian sandalwood has been grown, in various commercial trials, in the Ord River irrigation area (Kununurra) since 1987. The ARC project is designed to deliver improvements to the commercial industry.
The discovery at UWA of a gene that causes a rare muscle disease has helped clinicians all over the world to diagnose a formerly puzzling problem.

Professor Nigel Laing and his team at the WA Institute for Medical Research identified a genetic disorder that affects muscles in the forearms and lower legs, and can strike children as young as four.

It is now known as Laing early-onset distal myopathy.

The disease can leave those affected with a condition known as ‘foot drop,’ where weakness in the lower leg muscles stops sufferers being able to pull up their feet.

“This means they eventually can’t walk normally because they tend to catch their toes and fall,” said Professor Laing, who is a Professorial Fellow and head of the WAIMR Molecular Neurogenetics laboratory at QEII.

The team’s discovery of the gene responsible for the disease, in collaboration with Dr Chris Meredith at Edith Cowan University and researchers around the world, was detailed in the American Journal of Human Genetics late last year.

“Since then, we’ve had a steady stream of clinicians contacting us from all over the world, thinking that a previously puzzling patient may have this disease and asking us to analyse the gene,” Professor Laing said. “For those patients where we identify a mutation, the clinician can now put a name to something they previously could not identify.”

There are many different distal myopathies. “It’s a weird disease,” he said. “Every form of distal myopathy affects a different set of muscles, and we do not know why. The gene mutated in Laing early onset distal myopathy is expressed in every slow muscle fibre in the human body. We do not know why these specific muscles are worse affected than others.”

Patients have a 50 per cent chance of passing on Laing’s early-onset distal myopathy to their children. The condition can therefore severely impact family groups. “But now we have the gene, prenatal diagnosis is possible, when that’s appropriate,” he said.

There is, as yet, no treatment for Laing early-onset distal myopathy but researchers are hoping that isolating the gene will now help them to work out ways of tackling the symptoms experienced by patients.

“The gene causing the condition is for myosin, one of two proteins needed to make muscles contract,” Professor Laing said. “This makes it hard to find a treatment, but this is the golden age of genetics – we are like the early explorers mapping the world – we are always breaking new ground. Who knows what is possible?”

The WAIMR team continues to work on developing a treatment for the condition.
Omanis join us in agriculture

A new collaboration with Sultan Qaboos University will have Omani PhD students studying at UWA.

Two postgraduate students from Oman will start their work at UWA later this year. The Faculty of Natural and Agricultural Sciences (FNAS) has been negotiating for a year with SQU, since their university executives visited Australia and New Zealand looking for partners to help them develop a PhD program.

“We responded very quickly,” said Professor Alistar Robertson, Dean of FNAS. “Although our faculty has close to the proportion of postgraduate to undergraduate students that is preferred at UWA, the University as a whole needs to pick up postgraduate numbers,” he said.

“Professor Robyn Owens has done a great job in securing more scholarships. A collaboration with Oman will help to expand and enrich our PhD program and assist SQU to develop theirs.”

Professor Roberts and Professor Kadambot Siddique, the Director of the Centre for Legumes in Mediterranean Agriculture, visited Oman in December. Deputy Vice-Chancellor, Professor Margaret Seares, and Director of the International Centre, Dr Bruce Mackintosh, also met SQU executives, and the framework of the collaboration is now in place.

Both universities have agreed that their joint work needs to focus carefully on areas of strategic interest to Oman and SQU, and UWA. The links are being forged in the areas of agriculture and marine science, through SQU’s College of Agriculture and Marine Science.

Potential projects will range from a proposed Indian Ocean Marine Consortium, involving, UWA, SQU and institutions in South Africa and India. This may be one of the longest initiatives to develop, but at the other end of the scale, are short-term specific technical training programs that may be offered by UWA for SQU technical staff.

Professor Robertson said the initiatives that appeared to be most favoured by both parties related to postgraduate training (delivery of master classes in Oman by UWA and SQU staff), co-supervised PhD programs, and research project collaborations.

Possible master classes may include integrated salinity management; integrated pest and disease management of crop and pasture species relevant to Oman agriculture; and principles and practices of scientific writing.

PhD training is starting with FNAS offering two half-scholarships for the first two PhD students, who will start work here towards the end of the year. “It may be useful to have an Australian student and an Omani student working together on related projects of strategic importance to Oman,” Professor Robertson said.

UWA and SQU are yet to sign a Memorandum of Agreement covering the collaboration, but UWA would favour the College of Agriculture and Marine Science at SQU designating the Faculty of Natural and Agricultural Sciences at UWA as the Faculty-of-choice when the College is sending its demonstrators and lecturers overseas for PhD training.

Doctor Bruce Macintosh, Director International Centre, and Deputy Vice-Chancellor, Professor Margaret Seares, meet the executive of Sultan Qaboos University in Oman
A bunch of black gorillas sold newspapers at the traffic lights, a young man wearing Mum’s tennis dress served imaginary balls across Stirling Highway, and the furry friends of the Lion King re-enacted the Disney film at high speed.

The weather was great and the enthusiasm was ripe for the annual PROSH parade and sale of satirical newspapers (The Worst Imitation) as the students tried to outdo each other in raising money for charity.

They made a total of $92,000, which was a little under last year’s total.

“But we’re stoked with the results and proud of the paper and how the whole day went,” said Damien Stanton. “We were never going to make it to $100,000 this year because PROSH was right in the middle of an assessment week, which meant we had about 1,000 fewer sellers than we would normally have had. And, as it was school holidays, we also missed out on the very big sales to kids on their way to school.”

The $92,000 will distributed between the Cystic Fibrosis Association of WA, the Senses Foundation, for children with sight and hearing disabilities, and the Leukaemia Foundation of WA. Uni Camp for Kids also benefits from the PROSH fund-raising.
Drawing up plans for the world

When bright young architecture graduate Beth George won the Gus Ferguson Travel Scholarship in Architecture last year, she began excitedly to plan her return trip to Sri Lanka.

Then the tsunami devastated part of the country and she thought she would be forced to change her plans.

“But it’s actually even better,” said Beth. “Because I’m going to help, hands-on, with the rebuilding. I’m still in touch with the architects I met in Sri Lanka about 18 months ago on a design study trip, and they have said my help would be very welcome.”

Gus Ferguson, the University’s consultant architect, bestowed $50,000 for annual travel scholarships for five years, for graduating architects, so they could begin their careers with the same enriching travel experience with which he began his.

Beth is the second graduate to win the scholarship and she is impressed by the terms of the scholarship, its generosity and her good fortune in winning it.

“I went to Sri Lanka with the School of Architecture, in between fourth and fifth years, and I was fascinated by how different their language of architecture was. I’d spent four years working in the architecture building at UWA but now, here were completely different design solutions to problems, and new ways of looking at things,” she said.

While the students were in Sri Lanka, they worked on a rehousing project with local architects. When she returns, Beth hopes to include India and Bangladesh in her itinerary.

“I want to see a couple of public buildings in India designed by one of my favourite architects, Louis Kahn. They’re really awesome structures on a great scale.”

She is not sure where her career in architecture will lead her, but is confident, that, like Gus Ferguson, travel will open her mind up to unimagined possibilities.

The travel scholarship is for six to 18 months, and the winner must return home to Perth and give a presentation at the end of it.

“Other than that, there are no conditions. It’s fantastic. I didn’t want to make any concrete plans for my life after five years of full-on study and hard work. So this is just perfect. I’ll just see where this trip takes me.”

She said she lived day and night in the architecture building, working for many hours at a time in the design studio, going home only to sleep.

“It’s enthusiasm that makes a difference. I can see it now in the first year students I’m tutoring. As long as they have enthusiasm for what they’re doing, they have the potential to succeed,” she said. Gus Ferguson’s enthusiasm for the University also impresses Beth.

“I feel so honoured for somebody like him, who has done so much for UWA, to be giving me a scholarship,” she said.

Beth completed a double Honours degree in Architecture last year, by both dissertation and design. She is tutoring and working in an architectural office until the end of the year, when she leaves for India.

Wine on line

The program is supported by the Grains Research and Development Commission. It was developed by the Faculty of Natural and Agricultural Sciences (FNAS) and backed by the WA Department of Education and Training.

Speaking at the launch of the program and the first CD, Dean of FNAS, Professor Alistar Robertson, said secondary students needed to know that agriculture was a vibrant and varied industry whose success was underpinned by good science. He said virtually all UWA agricultural science graduates were offered professional employment immediately after graduating.

FNAS project officer Colin Hawke has been running professional development with high school science teachers, to prepare them for using the new electronic resource.

“I’ve worked with them in vineyards and wineries, so they have learnt a lot about the soil science, the plant growth and the chemistry of the wine making. They will be able to help their students make the most of the CD,” he said.
The Oak Lawn saw a protest rally with a difference recently – with the Vice-Chancellor cheering along with the students.

Professor Alan Robson and several other staff joined the students and supported their fight against the abolition of students’ amenities fees.

The Federal Government wants to abolish these fees, but the Guild, the Vice-Chancellor and, it seems, most staff and students on campus, understand that it could mean an end to campus services by the Guild and would certainly mean much less support for students in many areas.

Professor Robson is an outspoken advocate of the complete ‘University experience’ and he has challenged the reforms.

But he said the University could not ignore the legislation if it went through, because it stipulated harsh penalties on anybody who collected guild fees.

He has pointed out, as have the students, through the Guild, that the amenities fees support sport and recreation facilities, childcare, financial assistance, counselling services and more. By statute, fees cannot be directed into political causes.

Guild President, Natalie Hepburn, said the students were very happy that there was so much support from the staff, especially from the Vice-Chancellor. “As far as I know, most universities are in favour of keeping the amenities fee, but I don’t know of any institution which has stronger support from the staff and the executive than ours,” she said.

After rallying on the Oak Lawn, the students bussed to Parliament House to voice their protest, then marched to Menzies House, the headquarters of the Liberal Party. Police estimated more than 300 students joined the march, waving banners and placards.

Professor Robson said that all the staff could do was support the Guild and create discussion about the issue, in the hope that it would put pressure on the Federal Parliament not to pass the legislation.

The Guild had planned a shut down on Tuesday May 10, to demonstrate what the campus could be like without the support of students’ amenities fees.

Every year, a group of prospective students is introduced to university and TAFE campuses over a week of visits, while they stay together at Point Walter.

“The Year 12 Seminar for Indigenous Students has been running for 26 years,” said Marilyn Strother, liaison officer at the School of Indigenous Studies. “Different students are interested in courses at different institutions of course, but they are all impressed by our Centre for Indigenous Studies. It is a home away from home for Indigenous students, especially those who come from rural areas.”

Ray Garrett, the School Manager, said that among last year’s TEE students, there were only 12 Indigenous students who scored over 65. Students with ambition and ability need to be supported by the Centre and other Government agencies to enable them to qualify for university, as well as to help them complete a course.

Many of the students are still undecided about their futures, but Roland Garlett, the head boy at Lockridge Senior High School, said he hoped to study sports science at UWA. Melissa Clinch is keen on a career in science and Maria Cosmos hopes to study education and become a teacher.

The School of Indigenous Studies co-ordinates the event and organises the students’ trips to other institutions.
Complex universities like UWA are highly dependent on technical staff.

They quietly go about their business making sure that the right equipment, services and systems are introduced and maintained in workshops, laboratories and more generally across the campus. Technical staff number in the hundreds across this university, expertly designing, installing, maintaining and improving the infrastructure we all use.

How often do we notice or value that contribution? Do we use their expertise as fully as we should?

Organisational and Staff Development Services (OSDS) are focussing on the hundreds of technical staff at UWA, encouraging them to share their skills and expertise, to grow and develop, and to explore how they might be better recognised.

Director of OSDS, Professor Shelda Debowski, said that, at an initial forum for technical staff last year, she heard the same issues repeated by people in many different areas.

“They generally felt that they had enormous knowledge and expertise that could be more fully accessed,” Professor Debowski said. “Many of them feel their skills and experience are under-used”.

“Because many are quite specialised, and often work as single professionals, they also find it difficult to get away from their work setting to meet with others, participate in learning opportunities and generally expand their horizons.

“It seems they are a hidden resource that we don’t use well.”

OSDS is working to turn this around. A series of forums for technical staff are being run to explore the working experience of technical staff. For ease of numbers, the staff have been divided into three categories: 70 trades and workshop, including staff from the Faculties and Facilities Management attended the first forum; 45 information technology staff attended their forum; and clinicians, who work in research laboratories and chemical areas, are still to come in June.

“We can see three key challenges emerging. First, we need to build some avenues for networking among these staff — as they often feel isolated. Second, we need to address the challenge of providing development for people who are tied to their locations during the semester. Third, they have indicated that they would love to start sharing knowledge and best practice skills but they need support to do this. We hope this might be managed through the Human Resources system so that the skills and expertise are more accessible to other University members.

Professor Debowski said she was keen for the technical staff to own any process that was developed. The Advisory Group on General Staff Development has been particularly helpful in contributing ideas and insights.

“Technical staff are a community with common issues, even though they span quite different areas of technical support,” she said.

“One concern that has arisen consistently across all three groups is the feeling that they could be more strongly consulted when decisions relating to new technical purchases are made. There is a strong perception that they could have contributed to better usage of existing resources, and less wasteful expenditure on new resources. But they often hear about a purchase after the event, when it is too late,” she said.

The new Professional Development Review system may assist with creating better avenues for technical staff to contribute.

“It will be an important avenue for discussing continuity, succession planning, development needs and the capacity to contribute to decisions,” Professor Debowski said.

OSDS plans to create opportunities for technical staff to get together at least twice a year, and to put into operation specifically-designed development courses for them.

Craig Grimm works with the Frequency Standards and Metrology group

Time for technical staff

Ken Field works a lathe in the Physics workshop

UWA news
One of the most valuable resources for the health research sector in WA is not a piece of equipment, a building or even a pool of funds.

It is the Data Linkage Unit (DLU), which has enabled genetic and population health studies to combine more effectively than almost anywhere else in the world.

The DLU is ten years old in July. What began as a one-person operation in 1995 with funding from a Lotterywest grant, has grown to 17 employees. It is now a collaborative venture between groups at the State Governments Department of Health, the University of WA, Curtin University, and the Telethon Institute for Child Health Research.

The core data sets contain information about births, deaths, hospital admissions, cancer incidence, mental health episodes, midwives’ notifications and emergency department presentations.

The DLU develops and maintains a system of linkages connecting health information from various Western Australian data sets, spanning a period of more than 30 years. Researchers have used this valuable source of data in more than 350 projects that aim to improve the health of Western Australians.

Linked data studies have changed health policy and clinical practice in WA. Outcome highlights have been a decrease in the Australian exposure standard for silica, development of the WA Surgical Mortality Audit, and changing treatments for kidney stones.

The WA Child Health Study and the Busselton Health Study also extensively use linked data.

High profile projects have studied the increased risk of major birth defects with assisted reproductive technology, the protective effect of alcohol in patients with mental health problems, and DVT and air travel. Other outcome highlights have been a decrease in the Australian standard for exposure to silica, development of the WA Surgical Mortality Audit, and changing treatments for kidney stones.

“Anyone who has been connected with the DLU over the past ten years is invited to attend our anniversary party,” said DLU Manager, Diana Rosman. “We’re planning to launch an audiovisual presentation about the Unit, release a Research Outputs Report summarising all the research that has used data from the Unit, and key supporters of linked data will be invited to speak.”

If you’d like to attend the party, email Diana on Diana.Rosman@health.wa.gov.au.

One of the most frequently asked questions at Westminster Abbey is ‘Where is the tomb of Isaac Newton?’

This is since the publication of bestseller *The Da Vinci Code*, by Dan Brown, in which the tomb plays a prominent role.

“The phenomenal success of *The Da Vinci Code* (which is an excellent read) shows how widespread is a general interest in matters theological,” says UWA Catholic chaplain, Fr Gerald Brennan.

“However, a trained theologian will recognise the ways in which the book misrepresents Christian truth. A trained theologian will spot its lack of historical grounding; its gnosticism; and its post-modern scepticism. The very success of the *The Da Vinci Code* shows the need for alert theologians who will expose it as a coded misrepresentation of historic Christianity.”

Dan Brown and the Christian Theologian is the title of a lecture by visiting theologian Nicholas Sagovsky (pictured at the Abbey).

Nicholas Sagovsky is Canon Theologian at Westminster Abbey and Visiting Professor in Theology and Public Life at Liverpool Hope University College. He was previously Dean of Clare College, Cambridge and then William Leech Professor in Applied Christian Theology at Newcastle University. He has been a member of the Anglican-Roman Catholic International Commission (ARCIC) for ten years and has written widely on ecumenism and on issues in public life.

His free lecture is on Tuesday May 31 at 1pm in the Fox Lecture Theatre, Arts Building.
AARI is pleased to present the following program of presentations by leading Western Australian scientists. Individuals with an interest in these topics are warmly invited to attend.

**TIME**
12:30pm – 1:30pm
A light lunch is served at 12.

**LOCATION**
Joske Seminar Room
University Department of Medicine & Pharmacology
4th Floor, G Block
Sir Charles Gairdner Hospital

The Asthma and Allergy Research Institute (Inc).
Ground floor E Block, Sir Charles Gairdner Hospital, Hospital Avenue, Nedlands WA, 6009
Ph: 08 9346 3198   email: aari@aari.uwa.edu.au   www.aari.uwa.edu.au

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**RESEARCH, GRANTS AND CONTRACTS**
**COUNCIL OF GRAIN GROWERS ORGANISATION**
Prof Kadambot Siddique, Dr Tanveer Khan, Legumes in Mediterranean Agriculture: ‘CGO 3-2004 - Accelerated Genetic Improvement of Desi Chickpea: An International Partnership Between DAWA, CLIMA, ICRISAT and COGGO’—$622,314 (2005-10)

**FEDERAL OFFICE OF ROAD SAFETY**

**FUGRO AIRBORNE SURVEYS PTY LTD**
Dr Li Ju, Prof David Blair, Physics: ‘High Performance Vibration Isolation System’—$76,923 (2004-06)

**YOUTH FOCUS INC.**
Dr Mark Sachmann, Social and Cultural Studies: ‘Action Research in Relation to Youth Focus Group Support Program’—$45,000 (2005-07)

**The Asthma and Allergy Research Institute 2005 Medical Research Seminar Series**

AARI is pleased to present the following program of presentations by leading Western Australian scientists. Individuals with an interest in these topics are warmly invited to attend.

**TIME**
12:30pm – 1:30pm
A light lunch is served at 12.

**LOCATION**
Joske Seminar Room
University Department of Medicine & Pharmacology
4th Floor, G Block
Sir Charles Gairdner Hospital

11 July Genetic Factors in Nicotine and Alcohol Dependence
Prof Sibylle Scwabb, Western Australian Institute of Medical Research
The Asthma and Allergy Research Institute (Inc.), Ground floor E Block, Sir Charles Gairdner Hospital, Hospital Avenue, Nedlands WA, 6009
Ph: 08 9346 3198   email: aari@aari.uwa.edu.au   www.aari.uwa.edu.au

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**RESEARCH, GRANTS AND CONTRACTS**

**How to get into print ...**
All notices, classified ads and redundant equipment can now be sent to our new email address:
staffads@uwa.edu.au

We are no longer publishing Campus Diary, as these events are now available on the Web at http://events.uwa.edu.au

Please call Maryvonne Bestel in Public Affairs (6488 1900) or Lindy Brophy, editor UWA News (6488 2436) if you have any queries.
MACHU PICCHU TO MEXICO

Join Tango 22 on a stunning musical journey to the lost Inca city of Machu Picchu, featuring music, projected images and dancing from the magnificent Andes.

Then, descend from the mountain for a tour through sultry Latin America, with music and spectacular dance choreography from Peru, Argentina, Columbia and Venezuela, culminating in a rousing Mexican fiesta!

Tango 22
(featureting Paul Wright & Hugo Alvarez)
Ackon Cahuas Andes Music Ensemble
Canto Sicuri Peruvian Music Ensemble
Fantasia Latina Dancers
Cuerazo Dance Ensemble
Antonio Nunez - vocalist

Wednesday 1 June 7.30pm
Thursday 2 June 7.30pm
Octagon Theatre, UWA

Tickets from BOCs Outlets 9484 1133
and the Octagon Theatre 6488 2440
$27.90 Full, $20.75 Concession
$15 Student Rush 1 hour before concert

2222
That’s the number to call in an emergency.

Whether you need the police, an ambulance or the fire brigade, it is quicker and more efficient to call our internal emergency number, 2222.

Then security staff can direct the emergency services to the appropriate entrance to the University and make any provisions necessary for them. Security staff can also provide help and assistance until emergency services arrive.

Remember in an emergency
DIAL 2222

THE UNIVERSITY OF WESTERN AUSTRALIA
WA Printmedia Awards 2005
Cullity Gallery UWA
Cnr Stirling Highway and Clifton Rd

Opening Monday 16 May 2005, at 6.00pm
Weekends 10.00am to 5.00pm
Week days 9.00am to 5.00pm
until May 29
Hosted by Printmakers Association of WA

PROMOTIONS
Research Fellow to Senior Research Fellow
Dr Itai Einav (Centre for Offshore Foundation Systems) The recipient of an MTS Visiting Assistant Professor position at the University of Minnesota which has a very strong geotechnical group, he has had recent success with an ARC Linkage Award in addition to his APD Fellowship. He will add measurably to the already outstanding international reputation of the Centre for Offshore Foundation Systems and UWA. Has done some excellent research in theoretical geomechanics, rapidly establishing himself as one of the most promising young researchers in theoretical geomechanics.

Lecturer to Senior Lecturer
Dr Dominique Blache (Animal Biology) Ability to establish excellent collaborations and networks. Working with scientists from all over the world, from both developed and developing countries. The best in his field of research and constantly keeps adjusting his projects to be on the front line. Has demonstrated considerable involvement in a wide variety of well-received courses. Has the ability to drive the students’ interests and to open new topics that can make science more attractive to the new generation and to the public. Clearly demonstrated he is an excellent teacher and an excellent researcher.

Senior Lecturer to Associate Professor
Dr Ian McLean (School of Architecture, Landscape and Visual Arts) Has a very substantial number of publications and is very active as a visiting lecturer and conference panelist both in Australia and overseas. Has an exceptional standing as an Australianist able to supervise across all periods (including Indigenous Art). His quality of teaching is outstanding, his range of courses, and in the way in which he calibrates his offerings to the needs of the institution and the stages of development of the student involved. Has contributed substantially to the revitalisation of the BFA degree program and to the Art History and Theory Major in the BA degree program. He has established, in the community, a renewed and respected reputation for the Visual Arts program in the School. His reputation as a scholar, critic and historian of Visual Cultures locally, nationally and internationally is well established.

Associate Professor to Professor
Dr Alan Dench (School Of Humanities) He has made an important and lasting contribution to the documentation and description of the languages of Western Australia, giving rise to important theoretical insights in the field of linguistics. His work is held in high esteem internationally as evident in the prestigious publications in which his work has appeared, and also recognised in his 2001 election to the Australian Academy of the Humanities. An extremely able, effective, supportive and enthusiastic teacher, who has devised new courses and innovative teaching materials, he has received commendations for excellence in teaching in both postgraduate and undergraduate teaching. Assumed significant leadership roles including Head of the School of Humanities, and Executive Dean of the Faculty of Arts.

REDUNDANT EQUIPMENT Bids should be accepted by Monday 30 May with schools to have first option

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The cultural gulf between academics and people working in other parts of the community is real.

It is ironic that our research skills make universities attractive business partners and, at the same time, difficult for outsiders to deal with. As a university, we seek to perform our roles with excellence. By and large, I believe we succeed, although there is always room to improve.

With the CEED program, we link external research needs with student projects across the whole university, so we deal with a wide range of academics. Their areas of research are not only interesting, but often potentially significant for the wider community. So why don’t more businesses have research links with us?

First, let me note that some academics already have well-developed and highly productive research links with business; but why so few? We hear universities being criticised by industry as difficult to deal with. Is the criticism valid? If yes, is there something for which we should apologise?

What do those well-developed research links have which seems to elude the others? A clue is the term “well developed”. Universities and industry usually work together very successfully once the relationship is developed; but why is that relationship so hard to establish?

The key is to bridge the culture gulf until ways of interacting comfortably have been developed. The gap is probably inevitable; however, we need to remember it is only a gap, not a chasm. Academics and business people share the perennial problem of a desperate time-shortage in our work environments, but we have very different priorities in our use of time. Industry calls for solutions which are adequate to move forward, while academics insist on rigorous solutions, even if they take more time. Academics may therefore be seen as nit-picking, wasting valuable time, while they may see the industry approach as bordering on slip-shod. These attitudes lead to vastly different work cultures.

How can the culture gap be bridged? A few academics have the natural skill and inclination to work effectively with industry. They relate easily to clients working in industry environments, and have no difficulty meeting their operational needs, while still maintaining their standard of academic rigour. Many academics struggle when asked to do that. They have little idea of the pressures on their industry counterparts, and fail to deal with them in an effective manner. The frequent result: frustration and disappointment all round.

An effective way to develop new research links is the CEED program (pronounced “seed”). The acronym stands for Cooperative Education for Enterprise Development. CEED links academic project work of Honours and Postgraduate students with research needs of external partners. Any discipline or combination can be covered. To date we have had over 300 projects with a value totalling nearly $4 million. The program is expanding and 2004 projects were worth nearly $0.7 million.

CEED bridges the cultural gap which otherwise makes starting new research links a risky operation. It offers a simple, professional interface so external clients are on familiar territory. Specially tailored procedures and ongoing oversight ensure projects go smoothly, so academics and business can develop research links painlessly. The confidence and relationships developed offer enormous potential. I am aware of at least two research contracts each about $0.25 million negotiated as a result of such relationships. No doubt there have been many other smaller ones. That was, after all, one of the intentions when the CEED program was first set up in 1989.

As a university community, we naturally want to contribute to society, quite apart from any economic imperatives influencing us. We can and should have much more interaction with the business community. The culture gap need no longer hold us back.

So should we apologise to the wider community for our unique work culture? Should we change it? Absolutely not! That culture is what encourages and develops the research skills which are so useful. What we need is to make our research capabilities better known to those who will be delighted to access them; then carefully nurture and develop those new links so nobody is alienated during the hazardous early days. I make no apology for suggesting that CEED projects are a great way to develop research links. If we are to expand our effectiveness as a research intensive university, we must be seen to be excellent contributors, keen to work with the business community. We need to cooperate, not apologise. We have what it takes, we just need to use it properly.

What we need now is the will to do something about it.

Laurence.Spencer@uwa.edu.au or CEED@uwa.edu.au