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Dr Ciampa and Dr Thwaites share a joke after the ceremony.

Age is no barrier

Ninety-one year old receives PhD



AT NINETY-ONE YEARS of age La Trobe University graduate Joseph Ciampa is one of the oldest PhD recipients in the world – and far from ‘winding down’ after gaining his doctorate in October, he is already planning to do another masters degree.

When ‘Doctora’ Lilit Thwaites, the title by which he always addressed her, agreed to supervise the Spanish literature student, neither knew how remarkable Mr Ciampa’s eight year journey to obtaining his PhD would become.

Dr Ciampa received his degree testamur from Dean of Humanities and Social Sciences, Professor David De Vaus during a special back-yard ceremony in October at his home, surrounded by family and media.

Dr Thwaites says that finding ways to accommodate Mr Ciampa’s unusual circumstances was at times problematic. ‘He didn’t have the usual computer skills, for example, and getting to university via public transport eventually became difficult for him.’

Dr Ciampa’s meticulous drafts and notes had to be typed, and so Dr Thwaites had to find typists who were prepared to work with a manuscript handwritten in Spanish. ‘We were fortunate that we were able to take advantage of the expertise, and willingness of former students and departmental

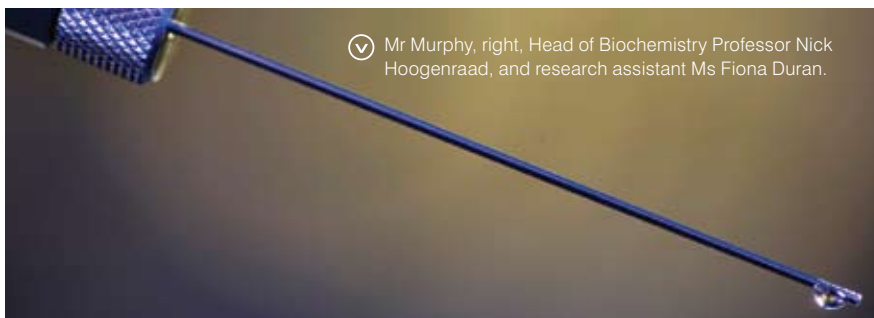
administrators to turn his draft version of the entire thesis into a series of Word documents’, she says.

Despite the challenges, Dr Thwaites recalls many stimulating supervisory sessions with Dr Ciampa, as he shared his ideas on Spanish author Carmen Martín Gaité, who is to Spain what Virginia Woolf and Simone de Beauvoir are to the English and French-speaking worlds.

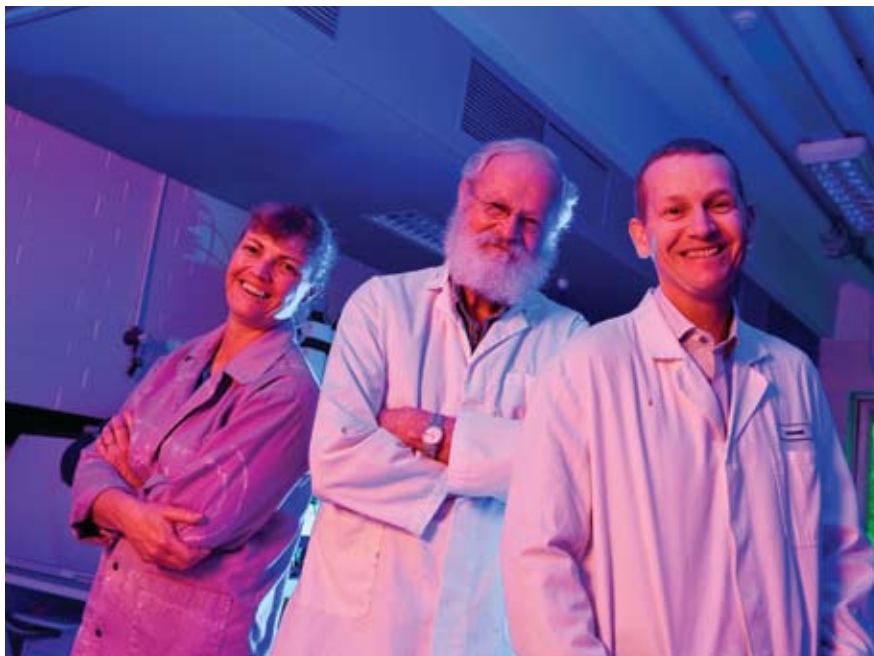
‘Our conversations were never a one-way street. They enabled me to rediscover Carmen Martín Gaité through his eyes, his ideas and the interconnections he made between her and other writers and ideas, while offering him my thoughts and suggestions on the author and her era.’

Dr Thwaites – who describes Dr Ciampa as ‘a perfect example of life-long learning’ – concurs with the examiners’ assessment of his work as a significant and original contribution to the study of Spanish literature.

She will miss his handwritten letters which always started with ‘Gentilísima Dra Thwaites’. ‘They were always handwritten in a lovely, old-fashioned “proper” style in Spanish,’ Dr Thwaites says. ‘Not exactly the style of communication we usually receive from our students nowadays!’ ○



Mr Murphy, right, Head of Biochemistry Professor Nick Hoogenraad, and research assistant Ms Fiona Duran.



New mass spectrometers speed up medical research

THE SEARCH for new drugs to treat cancer and auto-immune diseases such as rheumatoid arthritis will accelerate following the recent installation of a \$2 million suite of five mass spectrometers on La Trobe University's main Melbourne campus at Bundoora.

Housed in the Molecular Sciences laboratories, the highly sensitive machines offer researchers at La Trobe and the Bundoora-based Cooperative Research Centre for Biomarker Translation (CRC BT) access to some of the world's most advanced processes for identifying key fundamental proteins and determining their role in disease. The facility is expected to more than quadruple current capacity.

Deputy Vice-Chancellor (Research) Professor Tim Brown says the choice of equipment reflects a twelve-month global search for instruments offering multiple but complementary applications. 'We looked at every major supplier of proteomic instrumentation around the globe and

asked them to test our complex protein samples. Usually you get high accuracy or high throughput. The gold standard is to try to have equipment that does both. These machines approach that,' he says.

Like a prism that separates light into its component wavelengths, mass spectrometers separate, detect and digitise ions generated in a mass analyser from sample molecules, yielding data on the molecular weight and abundance of the molecule in a sample. They determine the mass of a molecule by measuring the mass-to-charge ratio of its ions, with each piece of equipment offering one or more sophisticated methods for achieving this end.

Data generated on protein molecules particularly hold promise for CRC BT researchers at La Trobe and their partners at the Burnet Institute in Melbourne, the Women and Children Research Institute in Adelaide, the Institute for Medical and Veterinary Sciences in Adelaide and the Mater Medical Research Institute and Mater Health Services in Brisbane.

These collaborators and their commercial partners, Amgen and BD Biosciences from the USA, seek to identify and profile hundreds or perhaps thousands of unknown 'biomarkers' for specific diseases including cancer and auto-immune diseases such as rheumatoid arthritis.

Mass Spectrometry Facility Manager Mr Vince Murphy says: 'Some cancers are explained by DNA damage or DNA mutation, but not all of them. A lot are due to inappropriate expression of cell surface proteins that control the proliferation of cells. There may be underlying genetics but it's really about regulation at the protein level, and that's what we're looking at with this equipment.'

Mr Murphy says the facility will be invaluable for the large body of molecular research being carried out in the University's Biochemistry and Chemistry departments and for collaborative or commercial research by researchers outside the University. ○



Many faces of the same gene

Unstable mutations. Global deregulation. The terms could be those used by the pundits seeking to understand the state of financial collapse currently preoccupying the world.

Unfortunately economics is not the only system prone to misadventure. Within the human genome, faults in the system that manages the way our genes are passed on from generation to generation also preoccupy researchers.

La Trobe geneticist and neurologist Dr Danuta Loesch has been studying families affected by one of those faulty genes for more than twenty years – and these are terms she uses to describe their impact on carriers.

The mutation in this gene is unstable across generations, she says. At its very worst, it causes Fragile X Syndrome which presents with severe intellectual disability and behavioural problems such as autism – hence its name: the Fragile X Mental Retardation (FMR1) gene.

These serious problems occur, says Dr Loesch, because the gene is shut down and does not produce protein essential for brain development.

‘This genetic change is called full mutation, and males are at a greater risk of severe problems than females, because the gene is X-linked and therefore the second X-chromosome in females can balance the damage.’

The instability is in the number of CCG repeats – three nucleotides that are the

building blocks of DNA – situated in the ‘regulatory’ part of the gene.

‘Their number can gradually increase across many generations, from the normal range (7-40 repeats), through the intermediate “grey zone” range, to the pre-mutation range (55-200 repeats),’ she says. ‘Pre-mutation can expand to the full mutation in one generation if transmitted through the mothers. These three zones appear to be linked to the severity of symptoms.’

A unique aspect of Dr Loesch’s study is that she is looking at the smallest expansions of CCG and their effects on people’s health.

In a ten year study funded by the US National Institutes of Health, conducted in collaboration with Professor Randi Hagerman and her team from the University of California at Davis, Dr Loesch has been studying people with genes in between these two extremes which represent a less serious form of the mutation.

Until recently, scientists believed that these forms had no clinical effects, and they were recognised solely because, if passed on, could predispose children of the carriers to full mutation. But Professor Hagerman and Dr Loesch contradicted this belief. Their early findings showed that these small expansions were associated with some behavioural or learning problems.

Then in 2000, Dr Loesch received a call from Professor Hagerman. ‘She called and asked if I saw many people with Parkinson’s Disease in my Fragile X families, because she had come across a few in hers. I said yes, amongst grandparents of children with Fragile X Syndrome. But Parkinson’s disease is very common in the general population, so I couldn’t believe there was a connection. The evidence was still anecdotal.’

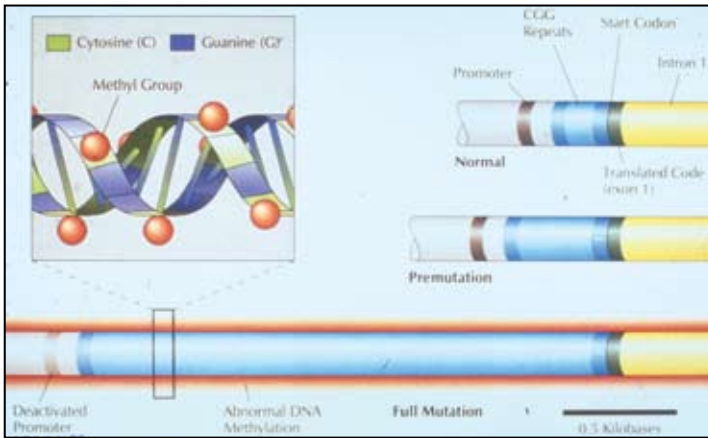
That led to a full-scale study which included large samples of pre-mutation male carriers recruited both in Australia and the US. The researchers did neurological examinations and came up with some surprising results.

They found that, in both Australian and US samples, male carriers over the age of fifty were prone to develop tremor-imbalance syndrome associated with cognitive decline. The frequency ranged from 38 per cent for carriers aged 60 -69 to 75 per cent at the age of 80 and over.

‘This was a very substantial finding,’ Dr Loesch says.

Then other researchers investigating female pre-mutation carriers found a 20 per cent increase in the risk of ovarian failure. These women were going into menopause in their late thirties and were turning up at IVF clinics.

A three-page article in *Time* magazine recently focused on 'one broken gene' and how it may help scientists understand and treat a 'whole host of seemingly unrelated ills' – autism, Parkinson's disease and ovarian failure. La Trobe's Dr Danuta Loesch is a world authority on the 'Fragile X factor' being scrutinised in a ten-year US funded study. **Rhonda Dredge** reports.



'This is a big issue,' Dr Loesch explains. 'It's a unique situation because you usually have one type of disorder in people carrying a standard type of mutation. Here you have many faces of the same gene, some mutations causing major developmental abnormalities and other late-onset disorders through different mechanisms.'

'Our research has shown that, in pre-mutation carriers, the FMR1 gene is not shut down; quite the opposite, it is overactive and thus produces a higher quantity of gene transcript-messenger RNA. It was therefore concluded that elevated levels of this RNA may be toxic, causing premature death of brain cells, which was soon confirmed by studies in animals.'

Now, the researchers suspect that even those people carrying repeats in the 41-54 (grey zone) range might have some clinical symptoms similar to those seen in pre-mutation carriers. This is because, in her latest study (published in the *Journal of Medical Genetics* in 2007), Dr Loesch showed that these carriers also produce excessive amounts of messenger RNA.

'This category is so important because one in thirty or forty people from the general

population is a carrier in the "grey" area. It's very common, and therefore even small clinical effects are borne by a great number of individuals.'

Dr Loesch is not in the business of scaring carriers of the mutation. Her life's work aims to understand the mechanisms that drive its expression. 'We are not doing the work to frighten people or label them, but to make estimates of the risks. They may be lower than people think,' she says.

'Further, our current study conducted in collaboration with the Murdoch Children's Research Institute of the Royal Children's Hospital in Melbourne, is trying to find out what is involved in that RNA toxicity. Our first results suggest that elevated levels of RNA with small expansions of the three nucleotide CCG repeats may trigger deregulation of many other genes – which leads to clinical abnormality.'

'Once this is confirmed,' says Dr Loesch, 'it opens real prospects for treatment and prevention.' ○

New professor for rural aged care post

Jeni Warburton has been appointed John Richards Professor of Rural Aged Care Research, based at the Albury-Wodonga campus. Professor Warburton is a former Senior Research Fellow in the Australasian Centre on Ageing at the University of Queensland. For more than fifteen years she has studied healthy ageing, the social participation of older people, and social policy issues relating to an ageing society.

In her new role, Professor Warburton heads La Trobe's John Richards Research Initiative (JRI) into Aged Care in Rural Communities – a five-year \$1.5 million venture funded jointly in equal parts by a private benefactor, the University and the State Government.

With projections that nearly one in three people in country Victoria will be aged 60 years or older by 2021, Professor Warburton said research carried out by the JRI will be significant in helping shape future aged care services for country Victoria.

'Our efforts will focus on delivery of an effective and efficient mix of aged care services for rural and regional Victoria, and the workforce planning and educational services needed to achieve this,' Professor Warburton said. Announcing the appointment, Dean of Health Sciences, Professor Hal Swerissen, said the John Richards Initiative builds on the University's strengths in social gerontology and aged care research to address key aged care issues.



Inducing labour is not without risk

CAUTION SHOULD be exercised when inducing labour in women who have no clinical indications for the procedure, says Dr Mary-Ann Davey of Mother and Child Health Research at La Trobe University.

Her conclusion follows a major quantitative study of 50,000 first births between 2000 and 2005 which showed that induced labours were more likely than spontaneous births to lead to forceps delivery, caesarean section and haemorrhage.

Babies were also more likely to be admitted to nursery care and to require active resuscitation after induced labour.

Dr Davey stresses that the sample included only those women whose pregnancies were progressing in a healthy and normal manner. 'I used data that are routinely collected



on all births in Victoria by the midwife attending the birth,' Dr Davey said. 'I selected those first births that appeared to have no clinical indication for induction of labour.

These were all single pregnancies of normal presentation born between 37 and 40 weeks with birthweights between the tenth and ninetieth percentile.

Mothers had no complications, such as pre-existing diabetes, hypertension, cardiac disease or mental illness and those younger than 20 years or older than 45 were excluded from the analysis.

Dr Davey believes that many of the labours were induced for reasons of convenience rather than for any medical indications. Sometimes the pregnancies might be induced because they are past the due date but only by six days or less.

Dr Davey suggests that induction of labour in uncomplicated pregnancies should only be undertaken after carefully weighing up the risks and benefits.

She cautions that the design of the research demonstrates associations, but not necessarily causal ones. 'There was a consistent pattern shown on nearly all of the outcomes,' she said.

After adjustment for other important factors, the risk of haemorrhage following induced labour was increased by 17 per cent, of an instrumental delivery by 20-70 per cent, of nursery care for the infant by 24 per cent and active resuscitation by 15-100 per cent, depending on the method of induction.

The risk of a caesarean was between two and four times more likely after induction. She also found that women whose labour was induced were more likely to experience tearing of the perineum or episiotomy.

There was no evidence, she said, that the type of labour had any connection with the death of the mother or baby. ○



La Trobe's Model UN delegates

Two La Trobe University students are among an inaugural group of ten selected to represent Australia at the prestigious Harvard University Model United Nations Conference in Boston, USA, in February.

Leigh Howard, a fourth-year double degree student in Law and International Relations, and Ashlea Scicluna, in the third year of her International Relations course, were chosen from hundreds of applicants based on academic merit, passion, community spirit and leadership abilities.

The conference, in its 56th year, is one of the oldest and largest international youth events in the world. It attracts 2,600 students and academics from thirty countries who debate over four days some of the major global issues in a mock UN setting. This is the first time Australia will participate.

Mr Howard and Ms Scicluna say students will experience first-hand the challenges of international negotiation and diplomacy and share their experiences and opinions with other young people from around the world.

In a message to the delegation, Prime Minister Kevin Rudd said the Government was committed to increasing its engagement with the United Nations as a fundamental pillar of its foreign policy. It supported giving young people a voice because their views and values will shape tomorrow's world. ○

Tough line on development

A La Trobe University anthropologist has been invited to develop and teach a unit for a major initiative by UNESCO to promote peace and sustainability.

The four-week intensive on sustainable development and the environment will focus on human conditions – poverty, inequality and how they relate to environmental problems. It is a unique approach developed by Dr Alberto Gomes that challenges the dominance of free market economics in the world eye.

‘Our everyday lives have become dominated by economic calculus,’ Dr Gomes says. ‘This needs to be challenged. We need to move to different ways of managing our lives like tribal people – on the basis of ecological principles and green values.’

Dr Gomes draws on thirty years of work with the tribal peoples of Malaysia. They have been compelled to give up environmentally sustainable practices to adjust to modern economic principles. They used to manage the forests communally. Now they are engaged in commercial agriculture which promotes individualism.

The important role anthropologists can play in framing new ways of looking at the world situation is highlighted by Dr Gomes’ appointment. He is teaching the course for the UNESCO International Master in Peace, Conflict and Development Studies at Unversitat Jaume I, in Castellón, Spain during November and December.

Political ecology is one of the new ways of looking at these development issues that takes into account the social and political conditions of communities.

‘If you want to understand the impact of the extraction of oil in Africa, political ecology says that it’s not just a matter of looking at the environmental aspect but also the complex underlying political economic conditions. For example, how do power relations – the dominance of certain groups

over others – impact on people’s relations with the environment? A lot of the conflicts that have emerged in Africa are somehow related to resource extraction. If you analyse them deeper they are to do with unequal distribution of resources.’

Free market economics is a Western concept that does not sit well with communities in less-developed countries, Dr Gomes says. ‘Such a type of economics promotes competition whereas many traditional societies adhere to a communal and egalitarian lifestyle with a strong sharing ethic. Free market capitalist economics promotes a hierarchical structure. Inequality is an integral part of the system.’

Dr Gomes is also taking a tough line on the issue of population control in an approach he calls the Malthusian spectre. ‘I challenge the conventional view that the depletion of resources is primarily due to increasing human population,’ he says. ‘You can have small populations that consume a lot more than larger ones. One US person, for example, consumes 40 times more energy than a Bangladeshi.’

‘If we are concerned about environmental issues we should curtail growth of high-consuming groups. Why do we promote population control in the developing world?’

Low consumption in developing countries is often labelled as poverty by Western economists. ‘The issue is not about poverty but inequality,’ Dr Gomes says. ‘People are condemned to be poor because they don’t have equal access to the resources that would allow them to escape poverty.’

‘High economic growth in India and China has increased the rate of inequality. The free market benefits people unequally. If you take India for example, an economist would say the country is progressing. Per capita incomes in India have increased but it is only a small percentage of people who have contributed to the increased per capita figures.’

Judging economic success by per capita income is a very narrow way of looking at the issue, he says.

‘If we speak about environmental problems, they tend to affect those in poverty much more than rich, affluent societies because of the transfer of pollution to marginal rural areas. Flexible capitalism promotes the placement of polluting industries in poor areas where labour demands can be filled.’ ○



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Habitat: the burning question

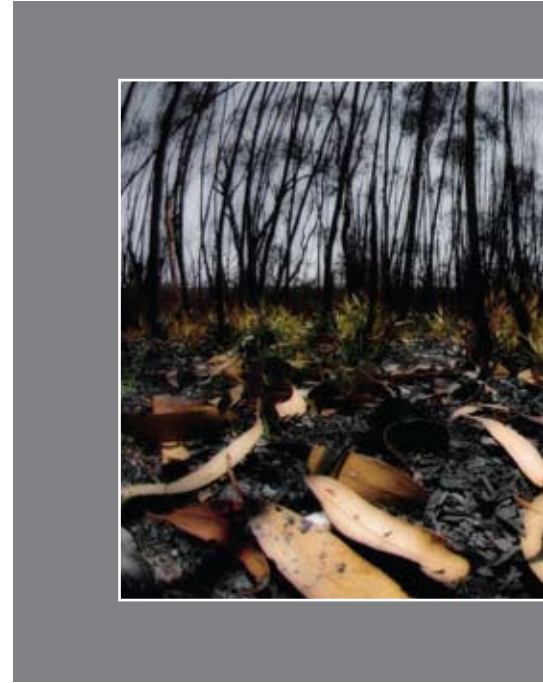
Recent large fires in Australia have put the spotlight on land management agencies and their fire management policies and practices. People's views have tended to polarise fairly quickly into two camps.

In one camp are those who claim the bushfire was an ecological disaster that could, and should, have been avoided had the land management agency conducted more prescribed burning before the fire season.

Others, often from agencies or governments, reassure the public that 'fire is a natural component of Australian ecosystems' and that soon they will witness the regeneration of the bush back to its former glory.

According to La Trobe University zoologist Michael Clarke, this polarisation of views is unhelpful and masks how little is known about the needs of fauna and flora when it comes to fire, or the best ways to meet those needs. 'There are no simple solutions for managing flammable landscapes,' he says, 'and we shouldn't be grasping for them in the heat of the moment.'

The outspoken ecologist is responding to recommendations in a recent Victorian parliamentary inquiry into bushfires and suggestions in the Government's own *Green Paper on Biodiversity* to nearly treble the area subjected to prescribed burning each year. 'This is an unprecedented step in the State's history. It is a response that appears to be based more on placating public fear of fire rather than scientific evidence of what will work.



'Fire agencies and volunteers perform an extraordinary service in protecting human life and property in one of the most flammable and fire-prone environments on the planet,' he says. 'But alongside this, they are also required to manage fire to achieve effective conservation.'

Dr Clarke is concerned that a trebling of the area burnt each year will not guarantee protection from fires in severe conditions – and may do ecological harm. The responses to fire of plants and animals can differ profoundly from one habitat to the next. Prescribed burning every year may have little impact on biodiversity in tropical savannahs, but be highly detrimental in foothill forests of eastern Australia.

He suggests the government should be extremely wary of extrapolating findings from pine forests in North America or the button-grass plains of Tasmania to, for example, the mallee regions of Victoria.

Dr Clarke is concerned that state-wide prescribed burning 'targets' – like trebling the area burnt annually – do not appear to take into account areas that have undergone recent wildfires, creating pressure for over-burning in some regions like the Grampians.

The challenge for land managers is to ensure sufficient areas of appropriate habitat are

retained to sustain current and future populations of native animals and plants. To do this we need to learn what the animals and plants can tolerate in regards to fire.

Two million dollar study

Dr Clarke has almost completed a two million dollar joint study with Associate Professor Andrew Bennett from Deakin University in the Mallee region of Victoria, NSW and South Australia. The study attempts to shed light on those features of mallee habitats that maximise biodiversity conservation, and how they are affected by fire. It is examining the response of plants, mammals, birds, reptiles, termites, scorpions and scale insects to fires.

'We know plants have numerous strategies for recovering after fire on a site, such as hard woody protection for seeds, re-sprouting from tough ligno-tubers, thick bark protecting buds, or fire-resilient seeds that survive for decades in the soil seed bank.

'By contrast, many animals will become temporarily extinct at a site following a fire and rely on re-colonisation of the site, once it recovers, from another source. Provided there are sufficient source populations within dispersing distance, and the key habitat features used by the animal recover

> A Millewa skink (*Hemiergis millewae*) captured during the study

✓ The Bardick snake (*Echiopsis curta*) from Petro Station

Photos: Lisa Spence-Bailey



© Kim Aubrey

at the burnt site, then the animals may well re-colonise. But if the burnt site is isolated or the key habitat features do not recover before the next fire, then the animals may become locally extinct.'

It may not matter much to a re-sprouting mallee tree whether it is in one hectare of burnt habitat or 10,000 hectares. But it matters to a pygmy possum which has to walk to find an unburnt refuge.'

Dr Clarke concludes: 'If the government decides to increase the annual level of prescribed burning so radically, then it needs a massive increase in its commitment to study the impact of its actions on fauna and flora.'

'Adaptive management – "learning by doing" – requires careful and dispassionate evaluation of the consequences of new policy and, if necessary, the humility to alter course in the light of new information.' ○

Snakes and skinks alive! But for how long?

AN ENDANGERED skink and snake have been discovered in a major survey of reptiles by a La Trobe University PhD student in the Mallee. Lisa Spence-Bailey's work is part of a study of the effect of fire regimes on fauna in an area straddling Victoria, NSW and South Australia.

The Mallee Fire and Biodiversity Project is the largest study of the impact of natural and man-made fires on landscapes ever conducted in Australia. It follows many years of research in the Mallee by La Trobe zoologist, Dr Michael Clarke, see page 8.

The Millewa skink discovery was hailed by Parks Victoria which will use results from the survey for habitat management in the Murray-Sunset National Park.

Ms Spence-Bailey says she was studying how reptiles in the Mallee responded to fire regimes. 'Catching this species of skink was a wonderful by-product of the fieldwork.' Her discovery expands the known distribution of the species. Prior to this, it was only thought to exist in small populations about 100 kilometres to the west.

She says its restricted distribution in Victoria and reliance upon mallee vegetation



makes the species potentially vulnerable to severe wildfires.

'Fire management in the Mallee and other ecosystems aims to create a mosaic of different fire-age patches,' she explains. However, little is known about which characteristics of such mosaics – patch size, connectivity, configuration of patches – are important to flora and fauna.

'To date management has been primarily based on meeting the needs of plants, the assumption being that the needs of animals will also be met. But we know very little about the responses of animals to fire. Our suspicion is that the plants are a lot more tolerant of fire than animals. So what may be ok for plants may prove inadequate to sustain some animals.'

The endangered snake, the Bardick, was captured at Petro Station, in south-western New South Wales, only the third recorded find in the State. A difficult snake to catch, it occurs in mallee habitats associated with spinifex. It is thought to be predominately nocturnal, preying on small vertebrates including lizards, frogs and mammals.

There are more than forty species of reptile in the study area, from seven different families – dragons, geckos, skinks, legless lizards, snakes, goannas and blind snakes. The researchers are looking at how their distribution and abundance varies according to habitat and fire history.

So far, Ms Spence-Bailey says, 10,000 animals have been captured on 280 sites representing twenty-eight fire mosaics. The reptiles are identified, marked and then released near the point of capture. 'They have opened my eyes to the value of the Mallee and the complexity of the challenge to conserve both flora and fauna.' ○



Ambassador rounds off a year of public lectures

ABOUT 300 people came to hear Australia's Ambassador to China and La Trobe Distinguished Alumni Award winner, Dr Geoff Raby, deliver the University's inaugural Alumni Lecture at the Melbourne Town Hall in October. The lecture, titled *Is the China Bubble about to Burst?*, followed the launch of the University's revitalised Alumni association at the National Gallery of Victoria earlier in the year.

Dr Raby said the Olympic Games were an enormous success. They boosted China's international standing and helped its engagement with the rest of the world. Despite the economic downturn, he predicted China would still achieve good growth. It had a high savings rate and, despite its deep integration with the international economy, domestic demand was still China's main source of growth. In twenty years, he said, China may well have an economy four times as big as it is today.

The 'tough issue', however, was environmental: forecasts predict China then will still depend on coal for sixty per cent of base energy – down from 68 per cent now. 'With an economy four times bigger than it is today, that is a very big issue for everyone.' Thanking Dr Raby for launching the Alumni Lectures, Vice-Chancellor Professor Paul Johnson said La Trobe had some 125,000 alumni throughout Australia and in more than 100 countries around the world.

'It is a source of great pride to the University that its graduates go out into the world and turn their talents to the advancement of society through research, business, community work and other forms of contribution. Alumni relations connect past and present students through a mentoring program and work with current students to help them achieve their best in the transition from study to the workplace.'

Alumni Association manager, Chintan Bharwada said La Trobe's alumni population has almost doubled in the last decade. 'The response to Dr Raby's lecture showed how enthusiastic our alumni are to keep in touch with the University, other graduates and friends.'

State of our rivers

The Melbourne Town Hall Alumni function was one of a number of second semester University public lectures featuring high-profile graduates and other speakers. In mid-October award-winning entertainer and actor John Doyle gave the Jonathan Mann Memorial Lecture on the Albury-Wodonga campus.

In 2006 he and environmentalist Professor Tim Flannery – a La Trobe alumnus who in July delivered the annual Kerfed Oration on the Beechworth campus – took a 'tinnie' from the Darling River in Queensland to the mouth of the Murray in South Australia. In his lecture, *The Murray-Darling: a Flawed Vision*, John Doyle shared his observations of the state of the river and its environs during the two-month voyage. The event coincided with the screening on ABC television of his and Professor Flannery's latest adventures in that well-travelled tinnie, *Two in the Top End*.

Politics and the EU

In September, Don Watson, another La Trobe alumnus, well-known author, public intellectual and former speechwriter to Paul Keating, delivered the Sir John Quick Lecture on the University's Bendigo campus.

Dr Watson, whose latest book, *American Journeys*, recently won the *The Age* Book of the Year Award, spoke on the topic *Politics and the Public Language*.

The Sir John Quick Lecture commemorates the 'father' of Australian Federation. It is held annually by the University with support from the City of Greater Bendigo.

La Trobe, through the Innovative Universities European Union Centre and its Bendigo campus, also held a series of very high-profile events, including hot-air EU balloon flights, in Bendigo during September.

Centre Director Dr Philip Bull said the purpose was to increase awareness and understanding of the EU in the region. Events included a workshop on EU trade and investment and a session for staff and students on educational exchange opportunities in Europe. ○

For more about the Alumni Lecture and forthcoming events for graduates, see www.latrobe.edu.au/alumni

\$6.4 million support for health and social research

Awards for asthma, malaria, cancer studies



La Trobe University research into breastfeeding, muscle function, asthma, malaria and cancer treatment has received almost \$3.2 million from the Federal Government in the latest National Health and Medical Research Council (NHMRC) grants allocation.

Three of the five studies are by leading research teams in the biosciences.

Cancer: A group headed by Dr John Silke from the School of Molecular Sciences has gained \$486,000 for its studies on the mechanism that leads to cell death, a relatively new field of research critical to developing next-generation cancer treatments.

It aims to identify genes that are more important to cancer cells than to normal cells in the body. The idea is to then develop drugs that specifically target those genes,

thereby killing cancer cells while leaving normal cells – those less reliant on these genes – relatively unscathed.

‘This approach,’ says Dr Silke, ‘would represent a significant improvement over most existing radio and chemotherapies that target dividing cells irrespective of whether they are cancerous or normal.’

Muscle work: Professor Graham Lamb and colleagues from the Muscle Cell Research Group in the School of Life Sciences have been awarded \$598,800 to further their work on the processes that make muscles contract. This has wide applications for health, exercise and disease.



With colleague Professor George Stephenson, Professor Lamb has overturned the widely-held theory that acidity, caused by a build-up of lactic acid, is a major cause of muscle fatigue. They discovered the opposite: acidity helps prevent muscle fatigue.

Malaria: Professor Leann Tilley’s team in the Department of Biochemistry has received \$886,250 to probe the action of drugs to fight malaria, responsible for an estimated two million deaths annually.

With the malaria parasite developing resistance to existing anti-malarial drugs, the work is probing the molecular basis of drug action to help develop new drugs and therapies.

The other two studies are being carried out by researchers from the Faculty of Health Sciences.

Breastfeeding: Dr Lisa Amir, a Senior Research Fellow at Mother and Child Health Research, heads a project supported by \$751,600 to determine the cause of ‘breast thrush’ in lactating women.

A qualified medical practitioner and lactation consultant who works in private practice and at the Royal Women’s Hospital, Dr Amir is a specialist in the role of *Candida albicans* in nipple and breast pain in lactating women which can lead to early cessation of breastfeeding if the condition is not appropriately treated.

Asthma: And \$454,550 has been allocated to Dr Bircan Erbas’ team in the School of Public Health for research into the impact of outdoor aeroallergens in exacerbating asthma in children and adolescents.

Her research has shown that grass pollen has an increasing effect on asthma hospital admissions. She is now studying the problem using new data from Melbourne and other Australian cities and plans to develop models to accurately forecast next day pollen counts. ○

ARC grants

Genetic crop switch – and children’s courts

A further \$3.2 million worth of grants has been awarded to La Trobe University researchers by the Australian Research Council (ARC).

Crop boost: A research team led by Professor Roger Parish, Head of the School of Life Sciences, working in collaboration with Pacific Seeds Pty Ltd, has received \$396,000 to develop a reversible male sterility system for hybrid seed production in canola, cotton and oilseed mustard.

Global demand for grains, fibre and other agricultural products, says Professor Parish, has increased significantly and, as a result, the security of food production is emerging as a critical issue.

The La Trobe researchers have identified a key plant gene linked to pollen development. They are now using this knowledge to increase productivity for Australian oilseed and fibre industries.

The system the group is working on provides a ‘genetic switch’ which can be used by seed producers to develop more vigorous crop varieties by turning off a plant’s ability to self-fertilise, or in-breed. Hence, crosses involving parents from different inbred lines are possible and hybrid vigour can be achieved.

Courts probe: Professor of Social Work and Social Policy, Allan Borowski, has gained \$580,000 for a national assessment of Australian children’s courts and the effectiveness of their responses to often marginalised delinquent youth and vulnerable children and families.

Professor Borowski says there is increasing concern in Australia and overseas that existing children’s court systems may be ineffective – and even contribute to longer-term problems, both for communities and government.

His study examines how key stakeholders, including judicial officers, view the courts’ role in the 21st century and the sorts of legal and social policy changes they would like to see.

Cell damage: Professor Paul Fisher and his Microbial Cell Biology Group in the School of Life Sciences have won \$170,000 for research on a new understanding of how mitochondrial dysfunction damages cells – namely that this may result from a signalling disorder in the cells, rather than an energy insufficiency as previously thought.

The work – for which Professor Fisher was awarded last year’s *Australasian Science Prize* – has implications for the development of drug therapies to treat mitochondrial diseases, as well as many neurodegenerative disorders where mitochondrial dysfunction plays a central role.



Deindustrialisation: Associate Professor Timothy Minchin from the School of Historical and European Studies has been granted \$161,893 for research titled 'Made in the USA?: The Decline of the American Manufacturing Economy, 1950 – 2008'. In a world where factory closures constantly make headlines, Dr Minchin says the project has considerable relevance for Australia.

'In a global economy, the decline of manufacturing industries has also affected other high-wage labour markets. De-industrialisation is a transnational process and this project will show that many multinational firms have declined simultaneously in both the US and Australia.'

Refugee help: Professor Sandy Gifford, Director of the University's Refugee Health Research Centre, and sociologist Dr Raelene Wilding have been funded for \$343,000 to examine how service providers working with young refugees can best capitalise on the skills and knowledge of displaced youth to help them develop positive identities and better futures. The researchers hope that insights from the study will enable Australia to more quickly benefit from the contributions of new arrivals.



Many young refugees are currently marginalised, says Professor Gifford. The investigation – which is being carried out with the City of Melbourne, the Cultural Development Network, the Centre for Multicultural Youth Issues and APC Au Ltd – will also contribute to improved community development and refugee service delivery.

Other projects supported by the ARC are:

Dr Christine Bigby, Social Work and Social Policy, with a grant of \$380,000, for a project 'Realising an "ordinary life" for people with intellectual disabilities' to help develop a framework for better outcomes for people living in group homes,

Dr Stefan Auer, Innovative Universities European Centre, and Dr Robert Horvath, Social Sciences, a grant of \$140,290 for 'The Spectre of Velvet Revolution: Dissidents, International Civil Society and post Communist Authoritarianism',

Dr Sheila Crewther, Psychological Science, \$300,000, for 'The advantage of being magnocellular: the role of the dorsal visual stream in object identification', Dr Zhen He, Engineering and Mathematical Sciences, \$190,000, for 'Efficient databases for flash memory',

Professor Susan Thomas, Communication, Arts and Critical Enquiry, \$117,000 for 'Anglophone Caribbean (auto)biography, plantation slavery, and the traffic of colonial reform and modernisation 1807–1834',

Historian Professor Diane Kirkby; Head of Politics, Professor Dennis Altman, and Australian Postdoctoral Fellow, Dr Alice Garner, \$235,773 over three years in collaboration with the Australian American Educational Foundation and the National Library of Australia for a 'Study of the Fulbright Program in Australia 1949–2009', and

Professor Tim Murray, Head of Archaeology, \$124,140 over three years with Museum Victoria for 'A Historical archaeology of the Commonwealth Block 1850–1950'. The area is defined by Spring, Lonsdale, Exhibition and Little Lonsdale Streets in Melbourne. ○

Top marks for maths and stats

La Trobe University mathematics and statistics students consistently rate the teaching they receive at the University among the best in the country, according to a national survey.

The results have been generated over the last three years by responses in the national Course Experience Questionnaires administered by the Graduate Careers Council Australia.

La Trobe mathematics and statistics degrees ranked in the top three Australia wide, for 'good teaching' and 'overall satisfaction', including an unrivalled three first or equal-first places. La Trobe missed the top placing only once among universities in Victoria.

Head of Mathematics and Statistics, Dr Geoff Prince says aside from great teaching staff, the strength of the curriculum is that 'the focus is on doing rather than listening.'

'Our students have huge demands on their time, and they appreciate more tutorial classes and fewer lectures with tailor-made subject texts that save them money,' says Dr Prince.

Third year mathematics student Christine Darby agrees. She has always been interested in mathematics, but has been inspired by her teachers.

'The enthusiasm shown by all the lecturers and tutors for maths is contagious,' she says. 'Their passion for maths is evident and this translates into a great environment for learning.'



Political ethics for activists

A NEW BOOK by Dr Carolyn D’Cruz aims to shift the way debate in politics and ethics is framed. After spending some years campaigning as an activist, Dr D’Cruz has written the book *Identity Politics in Deconstruction* (Ashgate Publishing, England, 2008) to rethink connections between practice and theory.

One of her major points is that political movements have irreconcilable differences within them. ‘There is a huge tendency for people to articulate politics in terms of “for and against” positions,’ Dr D’Cruz says. ‘This dominant way of thinking through wedged politics is not helpful.’

A lecturer in Gender, Sexuality and Diversity Studies, her research interests include identity and diversity, continental philosophy, censorship, theory and practice, democracy and semiotics.

The book looks at the way political movements are constructed and can be related to campaigns as varied as fighting over one’s birthright as a nation, such as in the Palestinian-Israeli conflict; lobbying for civil rights, for example in gay and lesbian campaigns for marriage; and the struggle for citizenship recognition by asylum seekers.

Oppression, exclusion are key factors

The common thread between these movements is that politics is based on identities, she says. People get involved in identity politics when they experience oppression because they are marked with a social identity that operates through a process of exclusion. ‘For example, when the “second wave” of the women’s movement manifested in the sixties, a lot of women were experiencing frustration at being confined to the domestic sphere and not getting recognition for their unpaid work. They formed groups to connect personal experiences to social and political restrictions.’

Yet processes for effecting social change based on these experiences is far more complex. ‘Everyone has different ideas about change. In the gay and lesbian movement, for example, some people have been campaigning for marriage. Others have different priorities. Marriage for them is a form of assimilating into an oppressive heterosexual framework.’

Membership within identity movements is also a contentious issue. ‘I’ve seen people

argue for hours over who can attend a march. Agreement, in such cases, is an impossible path. This also raises the question of representation: who can speak for whom? It changes for each circumstance. A deconstructive approach to these questions concerns experiencing the impossibility of “outlining” a programmatic politics and dealing with it.’

Dr D’Cruz says the book is aimed at academic activists, the last chapter focusing on the refugee. It draws on Jaques Derrida’s work on the ‘ancient laws’ of hospitality and on ethical relationships articulated by Emmanuel Levinas.

‘When you think of how we encounter people, we experience the other as someone who puts us into question,’ Dr D’Cruz says. ‘He or she asks for a response. If a stranger arrives at your door, does that person need to declare who they are before you let them in?’

‘This is the difference between conditional and unconditional hospitality. What if the person needs refuge? What if he or she has no papers? Unconditional hospitality does not ask for peoples’ papers before ensuring they are safe.’

‘This kind of ethics is not programmatic or based on a set of rules. All you have is the naked face of the other to guide you.’



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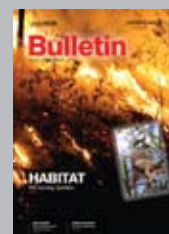
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Habitat

The burning question

Bushfire puts the spotlight on land management.

Possum photo by Lisa Spence-Bailey



Award-winning book focuses on great injustice



A BOOK co-authored by La Trobe University historian Professor Marilyn Lake has won this year's Queensland Premier's History Book Award, sharing the prize of \$15,000.

Titled *Drawing the Global Colour Line: White Men's Countries and the Question of Racial Equality*, it was written with Professor Henry Reynolds from the University of Tasmania.

Launched by former Prime Minister, Malcolm Fraser, the book has received widespread critical acclaim. The judges said it was 'wonderfully ambitious', dealing with 'one of the great injustices of the modern age. (It) shows that Australian attempts to define and defend "whiteness" through the infamous white Australia policy were in the vanguard of a global movement towards racial exclusion.

'Instead of a narrow national story, Lake and Reynolds focus on the interplay of attitudes, ideas and policies across the

English-speaking world – Britain, North America, Australia, South Africa and New Zealand – that saw notions of democratic equality and racial difference translate into racist policies of segregation, deportation and white privilege.'

Professor Lake said the book's publication was timely as 'Australian history – at both school and university levels – is increasingly orienting itself to larger global narratives'.

Professor Lake's win is the second State Premier's literary prize for La Trobe historians this year. Dr Robert Kenny won the best first history book prize in the Victorian Premier's Literary Awards for *The Lamb Enters the Dreaming: Nathanael Pepper and the Ruptured World*, see previous issue.

A voice for the heart of Kew

A MULTIDISCIPLINARY research project into the history of the Kew Cottages has resulted in a book and a documentary recently broadcast on ABC Radio National.

The study by a team of La Trobe University researchers, including historians, social workers, communication specialists and media producers, was carried out with the help of an ARC grant worth \$730,542 over three years. Their approach delves, for the first time, into the heart of the 121 year-old institution for people with intellectual disabilities by focusing on the oral histories of the residents.

Ted Rowe, abandoned in a park as a young child, entered the cottages at the age of four. He managed to work his way out by the time he was eighteen. Lois Philmore entered at the age of five. She was one of the 'working girls' whose unpaid labour ran the cottages. She told researchers that she didn't like the regimentation in the place. Patrick Reed, who entered at the age of 17, longed for open spaces, while David Honner, who was a resident for 50 years, now misses his former home.

The emotions that drove this prominent institution through a turbulent history that included violence, fire, neglect, as well as laughter and care, have been woven into a book *Bye-Bye Charlie: Stories from the Vanishing World of Kew Cottages* (UNSW



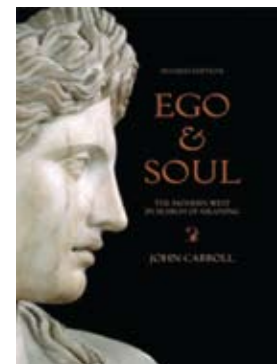
Press) by Corinne Manning and into *Kew Voices*, a radio documentary produced by Dr John Tebbutt from media studies.

The project addressed the fear that a large slice of community history would have been lost with last year's closure of the Kew Cottages.

Ego and Soul

BILLED as a book for people 'who want to explore the reasons behind some of the perplexing cultural problems that face us today' *Ego and Soul* (Scribe Publications) by Professor of Sociology, John Carroll, has been released in a substantially revised edition.

The book examines the 'crisis of meaning' in modern western societies and ranges across work, sport, intimacy, the university, shopping, tourism, computers, democracy, and a retreat into nature. It has already resulted in some lively public discussion, with author Clive Hamilton in Sydney and La Trobe Associate Professor in English, Dr David Tacey in Melbourne.



Family violence

A serious public health issue world-wide

WHILE IN AUSTRALIA, with the continuation of government intervention, the focus has been on family violence and abuse in Aboriginal communities, research in the latest *Journal of Family Studies* highlights a strong association world-wide between family violence and a wide range of health problems.

A special issue of the La Trobe University-based journal, it contains an overview of innovative approaches to the problem, and sixteen articles on research into issues surrounding family violence.

Guest editors from the School of Public Health, Professor Margot Schofield and Associate Professor Rae Walker, say that referral of children to statutory child protection services in Australia has more than doubled in the seven years to 2006.

They say violence against children includes neglect, emotional, physical and sexual abuse. Children are most at risk from sexual abuse from family members and caretakers. Further, many children are harmed by witnessing violence in the home.

A recent study of young Australians, between 12 and 20 years old, found that 23 per cent saw at least one episode of physical violence against their mother or stepmother. These involved throwing objects, hitting, or use of a knife or gun. While family violence and abuse is a serious public health issue, the editors stress that the

studies also demonstrate the importance of 'understanding subjective experience when trying to elucidate the impact of violence'.

Journal editor-in-chief, Associate Professor Lawrie Moloney, says most of the articles focus on men as clearly defined perpetrators. 'That is perhaps as it should be. Men inflict considerably more damage on women than vice versa, though at the same time they inflict even more on each other.

'We need to keep hearing from those affected by family violence to help them, and ourselves (as researchers) to make sense of it and to provide programs that can heal at least some of the wounds. We also need to continue to challenge institutions and bureaucracies when they fail adult and child victims of violence and abuse.'

Titled *Innovative Approaches to Family Violence*, the journal was launched by Professor Belinda Probert, Deputy Vice-Chancellor, Academic. Guest speakers were Robyn Miller, Principal Practitioner, Child Protection and Family Services Branch, Office for Children, Department of Human Services Victoria, who is completing her doctorate at La Trobe University, and Professor Alan Hayes, Director, Australian Institute of Family Studies.

Difficulty of achieving change

Professor Probert said while often the focus was on broader social and political solutions, the value of the journal was its emphasis on the impact of violence and abuse on individuals, public health perspectives, and interventions. As a person who has long held an 'unfashionable commitment to social justice', she said continuing levels of family violence demonstrated how difficult it was to achieve real cultural change. 'Most people

still don't believe the statistics about family violence or think such violence belongs to other times and other places; or they don't understand the power men have over women and children.'

Women today do have economic and political power, she said, but family violence continued. However, there were promising developments. Men, including rugby players, were joining campaigns to demonstrate that such violence 'is not on'.

Robyn Miller said that the Victorian Government was committed to strengthening evidence-based practice and that the *Journal of Family Studies* provides a 'meta-perspective' that can inform busy practitioners, policy makers and researchers in many ways.

Such 'core' knowledge, she said, was particularly important at a time when governments were integrating family welfare policy, putting 'children first', and recognising that the system needed to speak with 'one voice' rather than from different 'silos' such as courts, counsellors and other agencies.

Professor Hayes hailed the journal as an 'impressive collection' which casts new light on many complex problems. 'When it comes to family violence – which can turn the haven of home into the horrors of hell – we have too often got it wrong,' he said.

But in recent times, he said, much research was beginning to 'bear fruit' with clearer government priorities emerging. 'In addition, thanks to the work of people like Lawrie Moloney, who for three years has had a part time seconded position with the Institute of Family Studies, we at the Institute now have a much closer relationship with the Family Court.' ○