# MONASHNews

**FACULTY FOCUS:** Medicine, **Nursing and** Health Sciences 10 faculties

Each edition highlights the work of one of the



**OPINION** Easing the final pain



**FEATURE** An age-old problem



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## Breast-feeding may protect against SIDS

Baby health research

Breast-fed babies arouse more readily from deep sleep, Monash researchers have found, in a discovery that could help reduce deaths due to Sudden Infant Death Syndrome (SIDS).

An ability to wake up from sleep is believed to be an important survival mechanism that may be impaired in victims of SIDS. Although education programs to encourage parents to put babies to sleep on their backs and protecting babies from exposure to passive smoke have been effective in reducing the number of SIDS cases worldwide, it remains the major cause of death in infants aged between one month and one year.

Dr Rosemary Horne and colleagues from the Department of Paediatrics and the Ritchie Centre for Baby Health Research at the Monash

Institute of Reproduction and Development have investigated whether breast-fed infants wake more readily from sleep than formula-fed infants.

Their research has been published in the Archives of Disease in Childhood

Babies have two basic sleep states - quiet sleep and active sleep. Active sleep is equivalent to REM (rapid eye movement) sleep in adults, which is a deep sleep and when dreaming occurs. Quiet sleep is similar to non-REM sleep.

"People have queried which sleep state is the most dangerous for babies," Dr Horne said. "In quiet sleep, babies have more control over their physiology - their breathing and heart rate are quite regular. But in active sleep their breathing and heart rate are irregular and often babies will stop breathing for short periods of time. It appears that SIDS babies may be unable to rouse themselves and start breathing again.

"We also believe that babies who die from SIDS die toward the morning, which Supporting breast-feeding: Dr Rosemary Horne. is when they have more active sleep.

Dr Horne and her colleagues Dr Peter Parslow, Ms Dorita Ferens, Ms Anne-Maree Watts and Associate Professor Michael Adamson - studied 43 healthy full-term infants who had been breast-fed or formula-fed and looked at how readily these infants woke from active sleep and quiet sleep.

The researchers attempted to wake the infants with a ticklish sensation - a gentle puff of air up the nose - when the babies were aged two to four weeks, two to three months and five to six months.

We found that breast-fed infants were more easily aroused from active sleep at two to three months of age than formula-fed infants," Dr Horne said. "Two to four months is the age at which the risk of SIDS is greatest. Very few



**Photo: Andrew Chapman** 

babies die under one month, and the number dramatically decreases after four to five months.'

The researchers found no difference in the arousal responses of formula- and breast-fed babies during quiet sleep at any of the three ages studied.

"These study results support breast-feeding of infants during the critical risk period for SIDS, as reduced arousal, particularly in active sleep, could impair the ability of an infant to respond appropriately to a life-threatening situation," Dr Horne said.

- Penny Fannin

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# East meets West in powerful music making

TaikOz, a group of musicians who present a uniquely Australian approach to Japanese traditional music, will present a performance of Thunder Has a New Name at the Alexander Theatre at Monash University's Clayton campus on Friday 30 April.

Formed in 1997, TaikOz have established themselves as one of Australia's most energetic and exciting drumming groups for their physicality and the way they combine the power of the traditional Japanese taiko (drum) with the ethereal tones of bamboo and other instruments

Six musicians, including Riley Lee, a grand master of the shakuhachi flute, will play an array of beautiful handcrafted instruments, such as the 250 kg grand drum and the yokobue flute. TaikOz's music ranges from dynamic traditional pieces to wildly contemporary ones, some of which the group compose

Thunder Has a New Name Friday 30 April at 7.30pm. The Alexander Theatre. Bookings: +61 3 9905 1111. Performing Arts 2004 Program: www.monash.edu. au/monart/events.

Show notes:

## Water on tap - at a price

Conservation

The low cost of mains water is contributing to the failure of consumers to install conservation equipment such as rainwater storage tanks and grey water filters, Monash researchers claim.

Research by Mr Dwight Cheesman and Mr Matthew Lokot, undertaken during their honours year at Monash's School of Applied Sciences and Engineering at the university's Gippsland campus, found that water is too cheap, making it uneconomical for homeowners to install conservation

"The cost of buying and installing a rainwater tank is probably not more than \$2000, but it doesn't seem worth it when water out of the tap is still so cheap," Mr Lokot said.

The only truly effective method of initiating water conservation at the consumer level was through pricing changes, he said. "Our water resources are limited, and we are rapidly approaching the point where we will have exploited all available suitable surface water catchments.

"If Melbourne continues to use water at the current rate, the storages will no longer be able to satisfy demand by 2012. However, if we take up modest conservation measures and squeeze more from our catchments, we can meet our supply needs until at least 2050."

Their research acknowledged that cost and environmental factors prohibit building more dams or diverting rivers and streams.

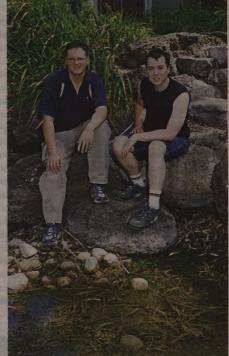
'But one of Melbourne's major sources of water, rainwater, is thrown away as storm water," Mr Lokot said. "If some of this was stored in domestic water tanks and used for watering gardens, it would directly reduce the demand on our reservoirs and water delivery systems."

The average household uses 35 per cent of its water for outside purposes, mainly garden watering, 26 per cent in the bathroom, 19 per cent to flush the toilet, 15 per cent in the laundry

to WaterSmart, the Victorian Government's water conservation strategy. A typical four-person family, as a customer of City West Water, one of Melbourne's four water retailers, pays

\$290 a year for 300,000 litres of water. "We suggest a user-pays tariff for around the first 330,000 litres, then increasing the tariff according to the amount of water used," Mr Lokot said. "We also believe water pricing should be set in proportion to the level of

water restrictions in force. "For instance, under level one water restrictions, the volumetric charge could rise by a few cents or a



Water is too cheap: Monash researchers Mr Dwight Cheesman (left) and Mr Matthew Lokot. Photo: Delwyn Hewitt

and 5 per cent in the kitchen, according percentage per 1000 litres, and under level four restrictions, water charges could be increased by as much as double. "That way, people would be forced to recognise the relative importance of conserving water, depending on the storage levels, and they would have good, solid financial incentives for doing so.'

Mr Cheesman, who graduated recently, and Mr Lokot, who is completing a masters degree, have been awarded the 2004 Yarra Valley Water Prize for their research.

- Robyn Anns

Contact: matt@lokot.com

## From the vicechancellor's

desk

A new monthly column by the vice-chancellor of Monash University, **Professor Richard Larkins** 



Education and research make a major contribution to the economic development of the country, so there is a strong argument for substantially more public investment in our universities. Moreover, there is evidence from other countries that high levels of student debt can lead to career decisions more likely to be based on what is most financially rewarding rather than on what affords most community benefit.

It is, however, clear that with the reluctance of any political party to increase taxes, the trend worldwide has been to expect students to make an increasing contribution to the cost of their education.

With almost 50 per cent of young people now accessing higher education, the Whitlam ideal of free university education for all who qualify is a distant memory. The HESA does provide a real increase in government funding and also a number of equity measures including raising

the HECS repayment threshold to \$35,000, a new HECS-like loan scheme for Australian feebased students and a significant expansion in equity measures.

Unless Monash wishes to subject students and staff to a progressive decline to mediocrity, we have no alternative but to increase our HECS charges and increase our load of full feebased Australian undergraduate students. The requirement that the fee-based Australian students have an ENTER rank within five percentile points of that required for a government-supported place will remain.

Twenty per cent of the extra income raised will be used to fund an expansion of our current equity and merit scholarship program and to institute a new program aimed at educationally and socially disadvantaged students that will be characterised by special transition and educational support for the first year.

educational support for the first year.
A proportion of places in this
new program will be reserved for
Indigenous students.

- Richard Larkins

## Professor's dual role to benefit two campuses

Professor Phillip Steele has taken up his new appointment as the first academic director of the Monash University Berwick campus. Professor Steele is also academic director of Peninsula campus and will divide his time equally between the two posts.

equally between the two posts.

"My appointment provides the opportunity for a lot more synergy between the Berwick and Peninsula campuses," he said.

"I think we will get a better result for both campuses. There will be more coordination of planning and communication, because we can view the two campuses together. I will work with my colleagues at Berwick and Peninsula to help define and build an exciting agenda for teaching, research and community engagement at both campuses."

Professor Steele said the outer urban campuses provided special opportunities for promotion of Monash.

"As the public representative of both campuses, I will promote them, and Monash as a whole, to the wider community," he said. "I also see myself working

"I also see myself working closely with colleagues at both locations. I will work with the faculties to ensure that the teaching, research and community service programs at the two campuses are aligned



Special opportunities: Professor Phillip Steele

with the university's strategic directions."

In March last year, Professor Rob Willis and Professor Steele were appointed as part-time academic directors of Caulfield and Peninsula campuses respectively, following the retirement of Mr John White, who had been campus director for both locations.

When Professor Steele took up the Peninsula appointment, he was also associate dean (development) in the Faculty of Information Technology. He has now relinquished that role so he can divide his time equally between the Peninsula and Berwick campuses.

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Briefly

### Volcanic crater research link to climate change

New studies of deposits in a Queensland volcanic crater emphasise the role of the tropical Pacific in forcing global climate change, a team of international researchers, including Monash University's Professor Peter Kershaw, has found.

Results from the study of a sediment core from Lynch's Crater on the Atherton Tableland in north-east Queensland question the traditional view that changes in the North Atlantic region have dictated global climate variation, said Professor Kershaw, from Monash's School of Geography and Environmental Science.

The study, published in *Nature*, has produced a detailed, well-dated record of climatic variability, inferred from changes in pollen composition, charcoal abundance and degree of decomposition in organic matter detected in the sediment core, over the past 50.000 years

### New technology leads to \$13m spray-on drug deal

A company created after researchers in Monash University's Pharmacy faculty invented a method for delivering drugs through the skin has secured a multimillion dollar contract to develop its drug delivery system for treating female sexual dysfunction and menopause.

Acrux Pty Ltd secured the US\$13.3 million deal with VIVUS Inc, a world leader in the research, development and commercialisation of products to restore sexual function.

Dr Barrie Finnin, a senior lecturer in the Department of Pharmaceutics, and his colleague Professor Barry Reed discovered that sunscreens increase the penetration of compounds through the skin. This led to the development and licensing of their transdermal spray technology, which allows drugs to be delivered through the skin.

#### IR expert to lead school

An industrial relations expert and former barrister with the High Court of New Zealand has taken the helm at the School of Business and Economics at Monash South Africa.

Professor Brian Brooks, who has been appointed head of school for three years, has worked in New Zealand, Australia and South Africa in academic, government and private appointments. He said he aimed to make the Business and Economics school the best teaching and research school in the country.

"While I am looking forward to doing more teaching, my main role will be to make sure my staff can teach and research effectively," he said. "I am a huge believer in progress through education, and Monash South Africa is a place where I believe I can do good for some time."

#### Keeping things green

Dry cleaning without toxic solvents, paper making without megalitres of water, computer chips without toxic waste – the public should demand these things today as the technology to provide it already exists, says Professor Joseph DeSimone, the first Monash North American Fellow for 2004.

Professor DeSimone visited Monash University last month as part of the Monash North America Steering Group's strategy to foster collaborative research links and exchanges between the university and North American research institutions. He is professor of chemistry at the University of North Carolina, Chapel Hill, and professor of chemical engineering at North Carolina State University.

#### Memorial scholarships

Monash University has awarded the first two Econometrics Memorial Scholarships, established following the tragic shooting at Monash's Clayton campus in October 2002.

This year, the scholarships will assist econometrics honours students Mr Andrew Frame and Ms Vanessa Sam Soon, who will be undertaking studies in finance and pure economics respectively.

The scholarships were established in memory of two students who lost their lives and to acknowledge the bravery of staff and students during the shooting.

## Top economist takes three titles

Monash Malaysia

One of the world's leading economists has taken up three key positions at Monash University's Malaysia campus.

In February, Dutch economist Professor Eduard Bomhoff was appointed head of the School of Business, head of the School of Information Technology and professor of economics.

Professor Bomhoff said he aimed to help academic staff at the campus develop research projects on major economic issues concerning Malaysia.

"The first economic issue involves moving Malaysia from an industrial to a service economy without losing its manufacturing base," he said.

"The second issue is the question of how middle-level Asian economies such as Malaysia can cooperate with the economic colossus that is China, and how Malaysian businesses can continue to compete with Chinese firms in a free-trade world.

"Finally, we must look at introducing transparency and accountability in business through corporate governance in a way that is sympathetic to local traditions and customs, but which also encourages further economic development and more advanced forms of finance.

"Specifically, Malaysia's ambitions in Islamic banking require additional research and public policy proposals in that important area."

Professor Bomhoff has held visiting professorships in Singapore, Moscow, Berlin and Kiel in Germany, Bern



Key positions: Professor Eduard

in Switzerland and Leuven in Belgium. In the Netherlands, he was founder-director of the joint executive MBA program of Erasmus University and the University of Rochester.

He has also consulted to the

He has also consulted to the Bank of Japan, the International Monetary Fund, the Federal Reserve System and the European Economic Union and was founder-director of a leading think-tank for public policy.

In 2001, Queen Beatrix of the Netherlands appointed him as an Officer of Orange Nassau (Royal Order of Merit) in recognition of his activities in education and research. He also served as minister of health and deputy prime minister in the interim government after the assassination of Dutch politician Pim Fortuyn in May 2002.

- Robyn Anns Contact: www.monash.edu.my/

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## Plant flowering hots up

Global warming

A one degree increase in regional temperature could advance the flowering of plants by two weeks, a mathematical model developed by a Monash researcher in collaboration with a Scottish geoscientist has predicted.

Dr Malcolm Clark from

Monash's School of Mathematical Sciences and Professor Roy Thompson from the University of Edinburgh have developed a simple mathematical model that represents the relationship between flowering date and temperature and predicts the effect of global warming on plant behaviour.

Most botanists agree that plants need a certain degree of thermal energy before they start flowering. "Put simply, the plants hibernate in winter and wake up when the weather warms but don't begin to flower until they have received a certain amount of energy from the sun," says Dr Clark.

Dr Clark and Professor Thompson used data gathered at the Royal Botanic Gardens Edinburgh between 1908 and 1939 that gave the daily



Researching global warming's impact on flowering: Dr Malcolm Clark (left) and Professor Roy Thompson.

temperature and the day of first flowering for 97 plant species to develop a statistical procedure that explained variations in flowering date and allowed the consequences of future temperature change to be predicted.

Although the model has so far been used only to predict the effect of climate change on plants flowering in the northern hemisphere's spring, Dr Clark and Professor Thompson are extending the model to include flowering at

all times of year and to encompass Australian plants and climates.

Their model suggests that flowering in Edinburgh will advance on average by 11 days for every degree of temperature rise.

"So the anticipated local warming of three degrees in Scotland during the coming century can be expected to advance flowering by more than a month," says Dr Clark.

However, the change in first flowering date could be more extreme if, as climate change scientists predict, the increase in regional temperature is greater in winter than in summer. In this case, the Clark-Thompson flowering model predicts that an overall increase of one degree with more winter than summer warming could advance the first flowering date by 16 days at the start of spring and 11 days at the end of spring

"Regional changes in climate, particularly increases in temperature, have already affected a diverse set of physical and biological systems in many parts of the world," says Dr Clark. "If, as our model predicts, flowering times are significantly advanced, there could be substantial ecological repercussions.

"For example, some birds migrate thousands of kilometres to feed on flowering plants, and the plants rely on these birds to distribute their pollen. If the birds arrive well after flowering has started, they will have less nectar to feed on and the plants' reproduction will be affected.'

- Penny Fannin

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## The voices of bush voters

'The Voice and the Vote of the Bush - The Representation of Rural and Regional Australia in the Federal Parliament', a report by Monash academic Dr Jennifer Curtin on the attitudes of rural voters to government, political parties and politicians in late 2000 and early 2001, was officially launched in Canberra last month.

Pictured at the launch, from left, are Deputy Prime Minister Mr John Anderson, Dr Curtin, Speaker of the House of Representatives Mr Neil Andrew and Member for Hinkler Mr Paul Neville.

Dr Curtin, a lecturer in the School of Political and Social Inquiry, based her report on interviews and written responses from 85 people in the electorates of Parkes in New South Wales, O'Connor in Western Australia, Capricornia in Queensland, Mallee in Victoria and Grey in South Australia during her stint as an Australian Parliamentary Fellow in 2000.

The report provides a snapshot view of rural and regional political discontent, providing the reader with a feel for what it was like to be a rural voter in Australia in the first year or so of the 21st century.



## Supporting women postgraduates

Women in research

A report by the Monash Postgraduate: Association (MPA) has provided a detailed examination of issues for women undertaking research higher degrees at Monash University and suggests strategies to make their time at

Monash even more emjoyabile and productive.

The report, Modelling Quality Experiences for Women in Research Higher Degrees, was released in December 2003.

MPA executive officer Ms Jenny Reeder said that although Monash was highly successful in recruiting women into postgraduate research, it was essential to ensure they had a positive: experience and were supported through to

phace to assist women in managing the demands of postgraduate research with those of paid work and family life," Ms Reeder said.

"Monash is already demonstrating good practice in recruiting and retaining women in research higher degrees and assisting, thern to complete their research in a timely fashion.

The university recognises the importance



"It is important to assess the naeasures in of developing seminar series and workshops that provide support for academic clevellopment and, at the same time, social events that provide opportunities for postgraduate researchers to meet and interact informally with each other and academic staff."

Ms Reeder said the ability to recruit previous Monash students to undertake a research higher degree pointed to a high level of encouragement

Demonstrating good practice: From left, MPA president Mr Bhanuka Wanasinghe, vice-chancellor Professor Richard I\_arkins, Monash alumna Dr Rosemary Calder and MPA women's officer Ms Jane Menzies at the launch of the report. Photo: Melissa Di Ciero

by the university to progress from one level of study to another. Monash was also successful in attracting women from other institutions into its research higher degree programs.

However, there is still a meed for increased flexibility to meet individual needs including options for part-time research, information on the availability of child care and family

support programs, realistic information on career options, an encouraging and supportive environment and additional financial support,"

- Karen Stichtenoth

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**Pioneering** research: Professor Jayashri

### \$1.4 million for hormone studies to treat psychoses

Psychiatry

Monash's Professor Jayashri Kulkarni has obtained four lucrative grants to further her pioneering work using oestrogen to treat bipolar affective disorder and schizophrenia.

As director of The Alfred Psychiatry Research Centre, which coordinates and facilitates psychiatric research between the hospital and the university, Professor Kulkarni has received grants totalling more than A\$1.4 million from the Stanley Medical Research Institute in Washington, US pharmaceutical firm Eli Lilly and the National Health and Medical Research Council (NHMRC).

She has been awarded a three-year Stanley Foundation grant of US\$230,000 for her study 'Anti-oestrogen – a potential treatment for bipolar affective disorder in women' and a Stanley Foundation grant of US\$180,000 over two years for 'Selective oestrogen receptor modulators - new treatment for women with schizophrenia?'.

Professor Kulkarni has also won a five-year

US\$675,000 grant from Eli Lilly for a 'Bipolar comprehensive outcomes study', plus a three-year A\$234,000 NHMRC project grant for 'Antioestrogens in women with bipolar disorder'.

Her research was prompted by observations she made while working as a consultant psychiatrist at Melbourne's Royal Park psychiatric hospital between 1989 and 1994.

"I was struck by the fact that many female patients provided insights into their condition, often with a lot to say about the perceived link between their illness and their hormone levels - ideas that were not listened to," Professor Kulkarni said. "I thought it might be worth exploring those subjective observations of patients, to arrive at a better explanation of schizophrenia and improved treatment that was intuitively tailored to what the patient tells you."

Professor Kulkarni set up a trial in which 90 schizophrenic patients each applied a transdermal oestrogen patch every day for 28 days as an adjunct to their existing medication. "We are now in the process of analysing the data collected during that trial, and the results look positive," she said.

In another recent study, she looked at the effect of Tamoxifen – an oestrogen-suppressant drug used to treat breast cancer – on 15 women with manic symptoms, because of theories that Tamoxifen worked in a similar way to Lithium, a known mood stabiliser.

That pilot study was successful, so Professor Kulkarni is now organising a further situdy involving (50 women over three years.

What is very interesting to me is that we have had no trouble recruiting women to our studies. It seems to make such intuitive sense for the women and their carers to use anti-oestrogen treatment for psychotic illnesses," she said.

"It's heart-warming. We have had some very pronounced improvements in women who, having very severe schizophrenia, had tried everything else available. As a clinician, that's

Professor Kulkarni said oestrogen also alleviates psychotic symptoms in men because it works in the brain in the same way in both sexes. - Robyn Anns

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#### Schools

#### **Experience** Monash

The first Experience Monash program for this year will be held in April at the university's Berwick and Peninsula

This is a free program for Year 10 and 11 students who wish to take part in practical sessions organised by Monash academic staff. Activities have been designed to inspire and inform students, allowing them to sample a variety of educational fields. The program also includes a campus tour, lunch and an opportunity to talk to university staff about social and support services.

A brochure, poster, application forms and cover sheet have been sent to schools' careers teachers. Further inquiries should be directed to Ms Val Foster on +61 3 9905 4164 or see www.monash.edu.au/pso/

events/experiencemonash.html. Sessions will be held at Berwick campus on 15 April, from 9.30 am to 3.30 pm, and at Peninsula campus on 16 April, from 9 am to 4 pm.

#### At Monash

The At Monash Seminar Series for 2004 is now open for registration.

During the sessions, students will hear from an academic staff member, a current Monash student and a graduate from each faculty.

The first session will be held in April, with further sessions taking place in May. Details about the May sessions will follow in the next issue of Monash News.

April session: Medicine and Health Sciences - 27 April, 7.30 pm to 9 pm, Clayton campus

For more information or to book online, visit www.monash.edu.au/pso/events/.

#### **Monash Teachers** Seminar

The Monash Teachers Seminar will be held on Thursday 10 June at the Clayton campus. All careers and Year 12

coordinators are welcome to attend this university-wide event.

Programs and booking forms will be sent to schools in May. For more information, contact Ms Val Foster on +61 3 9905



chancellor Mr Jerry Ellis, Lady Audrey Matheson and Dame Elisabeth Murdoch.

**Photo: Greg Ford** 

## In memory of Sir Louis Matheson

Dame Elisabeth Murdoch AC DBE paid tribute to Monash University's founding vice-chancellor, Sir Louis Matheson, at an official Appreciation of the Roger Kemp Tapestry, 'The Cross', last month.

Dame Elisabeth, who funded the tapestry in memory of Sir Louis, said it was a wonderful and inspiring work and a fitting tribute.

'It gives me tremendous pleasure to come and see this beautiful tapestry that is hanging there as a tribute to Sir Louis and his role in establishing this wonderful university," she said.

"I'm sure you will find it very inspiring. It is rather proper that this large tapestry will hang in memory of the great man who established this great university."

'The Cross', woven at the Victorian Tapestry Workshop, is based on the Roger Kemp painting of the same name, which forms part of the Monash University art collection. The tapestry was hung in the Robert Blackwood Concert Hall in October last

Sir Louis' wife, Lady Audrey Matheson, was joined by Dame Elisabeth, former

state premier Mr John Cain, Monash chancellor Mr Jerry Ellis, vice-chancellor Professor Richard Larkins AO and Mrs Caroline Larkins at an official ceremony in appreciation of the work.

Professor Larkins said he had been aware of Sir Louis' impressive achievements at Monash for some time.

"But it's only since I've been here that I have truly appreciated the achievements of Sir Louis - not only did he and his colleagues build an impressive university at the forefront of research and political innovations, but the international agenda was also very much initiated by Sir

Louis," he said. Sir Louis and Lady Matheson were both strong supporters of the arts and committed the university to make contributions to the arts every year. The event also provided

supporters of the arts at Monash with their first opportunity to meet the new artistic director of the Monash University Museum of Art, Mr Max Delany, who took up his appointment on 22 March. - Diane Squires

Contact:

## Literacy and numeracy in the home

#### Education

The extent of exposure to literacy and numeracy in the home and wider community is often underestimated by both early childhood educators and parents, a Monash University study has found.

The DEST-funded 'Catch the Future' study, undertaken by researchers in the Education faculty at Monash's Peninsula campus, mapped the literacy and numeracy experiences of children living in low socio-economic circumstances in the year prior to

The project involved 65 families and five early

childhood centres from Victoria's Westernport region, with the aim of providing interventions for the development of literacy and numeracy skills in pre school-aged children.

Professor Marilyn Fleer, project leader and senior lecturer in education at the Peninsula campus, said the families and early childhood educators were encouraged to take an active role in the project.

"Families were given disposable cameras to take home to photograph their children participating in everyday activities both inside and outside the home environment," she said.

"This was a very important aspect of the study. When the photographs had been developed, the

families and staff in the early childhood centres discussed the everyday literacy and numeracy contexts the children experienced based on the pictures.'

The images revealed the varied and rich experiences the children had in their homes and in the broader community and affirmed that family was important in constructing children's early literacy and numeracy skills.

What had previously been seen as mundane and insignificant tasks took on a new light, Professor

"For instance, one mother reported that she gave her young children pocket money so that when they wanted to buy something for themselves at the local shops, they had to work out whether they had enough money to pay for it.

"Another parent explained how setting the table had helped her daughter with subtraction - when there was one less person than usual for dinner, she knew to set one less place."

Following the initial documentation and discussion phase of the project, Monash literacy, numeracy and IT specialists worked with staff from the early childhood centres to further explore and develop literacy and numeracy teaching strategies that were meaningful for the children while also incorporating their learning experiences from

Professor Fleer said this was an important component of the project as many of the early childhood teachers held negative, even dismissive, views of parents' roles and understanding of the importance of literacy and numeracy skills in the early years.
"At the conclusion of the project, the teachers

recognised the ways parents actively supported their children's learning - even if, as some of them noted, the parents did not have the technical language to describe what they were doing with their children."

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"Dying does not always require health care intervention, but it will always need human support – someone to sit with people and support them in their final journey."

Photo: Newspix

Photo: Melissa Di Ciero

While Australian expertise in palliative care to ease the suffering of dying people has developed rapidly over the past 20 years, there is still a long way to go, writes **Professor Margaret O'Connor**, who holds the inaugural Vivian Bullwinkel chair in palliative care nursing at Monash.

# Easing the pain of the final journey

n Australia there is much work to be undertaken in palliative care. There are still people in our c ommun ity who are not dying well and who, for many and varied reasons, are not accessing the best care they could.

For example, people with diseases other than cancer, such as end-stage heart disease or motor neurone disease, still do not get easy referral or equitable access to palliative care services. While the reasons for this are unclear, it is thought that an uncertain prognosis and the demands on service providers for high levels of care might be some of the issues. Surprisingly too, given the amount of information available about palliative care and its demonstrated benefits for terminally ill people and their carers, lack of timely referral by health professionals also remains an issue. This may be because of ignorance, or health professionals' unwillingness to take a multidisciplinary view of the holistic needs of the terminally ill person and their family.

Our society is at once abhorred and fascinated by death; thus death and dying issues are still not the stuff of easy conversation, even in some health care circles. Because of this there are still people who, unaware of the sorts of support that can be offered through palliative care services, may be driven to end their own life, viewing this as the only way to relieve their suffering.

Although the care of dying people has always been seen to be different to the care provided in acute settings (as evidenced by the number of well-established hospices throughout Australia), its more recent development during the 1970s and 1980s as a specialty area of health care was in response to a perceived need for more active

intervention in assisting the dying person and their family in this final phase of life.

So, using a holistic model of care, physical symptom management remains a paramount skill for the clinical palliative care professional. But because the psychological, spiritual and social aspects of care are important, other health professionals who work on palliative care teams include social workers, psychologists, pastoral workers and physical therapists. In many settings, volunteers provide a vital role by reminding heath care professionals that dying is a human event. Dying does not always require health care intervention, but it will always need human support – someone to sit with people and support them in their final journey.

As in all areas of health care, funding levels and models are of ongoing concern to palliative care providers. While services wish to respond to needs in a timely and effective manner, there is a tension between the levels of need and what can be provided, under current funding arrangements and with current models of care.

An increasing community awareness of services, the broadening of palliative care expertise to encompass care for more than cancer, and the ageing population all cause palliative care providers to be continually reviewing models and practices of care. While not all dying people will require palliative care, the expertise ought to be readily available to those who do require such care. So flexible models and those that encourage the generous sharing of expertise are two aspects of how palliative care will face the challenges of future demand.

There has been a rapid development of palliative care expertise at all levels in Australia

over the past 20 years. Australia is well placed to meet the future service delivery challenges, from internationally respected research programs and significant work on service delivery models.

In relation to research, issues about how we can best deliver palliative care are indicative of an evolving discipline and of a discipline that can adapt to changing social times and individual needs. There has been much change in the short life of palliative care, particularly in the way services have become more part of mainstream health services and palliative care knowledge has become more widely disseminated.

But there has been little analysis on whether these changes have improved care for the dying. For example, does the service system work well when a person needs to move from home to the acute hospital or vice versa? Is there enough support for a person receiving care at home and how is this known? There are increasingly relevant areas of research about the applicability of palliative care for those people with illnesses other than cancer, for people dying in aged care facilities, and in addressing some of the ethical issues that arise in end of life care.

The discipline of palliative care is coming of age – establishing its place in health care, creating firm linkages with other services that a terminally ill person might need, becoming better known in the general community and assuming an increasingly public role in advocating for the needs of dying people. Being a relatively new area means the pioneering excitement and challenge are not so far beneath the surface of hard work for those committed to seeing that all Australians have access to the best care at the end of life.

#### Facing North

A Century of Australian Engagement with Asia Vol 2 1970s to 2000

**Edited by Peter Edwards and David** 

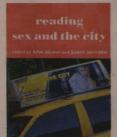
Published by Melbourne University Press

Facing North, produced under the auspices of the Department of Foreign Affairs and Trade,

is the first substantial history of Australia's relations with Asia since Federation. Volume 1 (2001) chronicles Australian-Asian relations from 1901 to the 1970s. Volume 2 discusses the changing relations between Australia and Asia in the period from the 1970s to 2000. Over this time, integration became a dominant theme as Australia looked increasingly to its near neighbours to form political, social and economic alliances.

The book combines a discussion of broad policy themes with detailed analysis of policy-making in relation to issues such as human rights and episodes such as the crisis in East Timor.

Professor David Goldsworthy is an honorary professorial fellow in the School of Political and Social Inquiry at Monash University. Professor Peter Edwards is an honorary professor at Deakin University and a visiting professor of the University of New South Wales and the Australian Defence Force Academy, Canberra.



#### Reading Sex and the City

**Edited by Kim Akass and Janet McCabe** 

In just a few years, the television show 'Sex and the City' has gone from cult phenomenon to awardwinning success and now has a huge international

This critical celebration and analysis of the life and times of Carrie, Miranda, Charlotte and Samantha explores issues such as sex and modern

relationships, male archetypes and the search for Mr Right, fashion and fashion journalism, third-wave feminism, citizenship and the single girl, television and fairytales and the crossover between television and film.

Ms Joanna Di Mattia, a doctoral candidate in the Centre for Women's Studies and Gender Research at Monash University, is one of 17 international contributors to the book.

#### Predictive Maintenance of Pumps using Condition Monitoring

By Raymond S. Beebe Published by Elsevier Advanced Technology, UK.

This practical book, the first on the subject, shows how condition monitoring can be applied to detect internal degradation in pumps, thus allowing appropriate maintenance based on condition rather than arbitrary

The book focuses on the main condition-monitoring techniques particularly relevant to pumps - vibration analysis and performance analysis. The philosophy of condition-monitoring is briefly summarised, and field examples show how it is applied to detect internal degradation

Mr Ray Beebe is an experienced engineer and coordinator of postgraduate programs in Maintenance and Reliability Engineering at Gippsland campus.

#### **Post**Script



#### **Mystics**

Presence and Aporia

**Edited by Michael Kessler and Christian** 

Sheppard Published by University of Chicago Press RRP: \$35.50

Mystics presents a collection of essays by prominent scholars that consider the councepts of mystics and mysticism. The essays explore accounts of the mystical, from aricient Greeks and medieval Christians to more contemporary,

and often controversial, authors. Here you will find Aquinas and Teresa of Avila rubbing shoulders with Bataille and Blanchot.

Former professor of English at Monada, Kevin Hart, is one of the contributors. Since September, he has been professor of English at No tre Dame University.

If you are a member of the Monash community and have a forthcoming book, contact media@adm.moriash.edu.au.

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## Designer's 4sight recognised

A visionary design concept that provided an inside peek into the everyday lives of the blind and vision impaired has resulted in a Monash communication winning the 2003 Saxton Scholars conceptual design competition.

Mr Christopher Yuen, 23, who completed honours at the university's Caulfield campus last year, received a \$5000 travel voucher for his project 4sight: Photography by People Who are Blind or Vision Impaired. The project culminated in an exhibition of photographs, accompanied by Braille descriptions, at Melbourne's 4cats Gallery.

Mr Yuen's project aimed to increase awareness of the visually impaired population by giving an insight into

the lives of the participants.

With assistance from the Royal Victorian Institute for the Blind, Mr Yuen contacted 16 blind or visionimpaired people interested in taking part in the project. Each person was given a disposable camera and asked to photographically document elements of their lives.

Themes included self-portrait, personal space, favourite object, happy thoughts and playtime. The featured photographs ranged from a quirky picture of a toilet, with the caption 'Time for contemplation', to an abstract picture of paper, with the caption 'I think this was supposed to be my lunch'.

"The concept confronts traditional ideas of who uses photography as a vehicle for communication and artistic expression in our visually orientated society," Mr Yuen said. "Participants were able to



Graphic designer as social commentator: Christopher Yuen's award-winning look at the everyday lives of blind and vision-impaired people. Photo: Greg Ford

reflect on their lifestyles and then capture elements of their lives in visual form. In essence, the works are intimate portraits of worlds captured 'sight unseen'.'

Saxton Scholars is a national competition for tertiary students studying graphic design or visual communication and is sponsored

Australian Students are required conceptualise and develop an idea or project in any medium, around any creative path. Three finalists are each given \$5500 to develop and implement their idea.

Monash has produced finalists each year since the award's inception in 2001.

Monash course coordinator Mr Russell said Kennedy award had become a project in the major visual communication curriculum.

"Saxton Scholars is especially well regarded because students have to come up with a concept outline and then, if selected as a finalist, back it up and produce the goods," he said.

"Chris's project is particularly interesting as it is a very good example of how graphic designers can also be social commentators

and contribute to public discourse."

The 4sight images are available for sale and can be viewed at www.rvib.org.au.

- Karen Stichtenoth

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## Enriched by Seoul experience



Eyes opened: Seoul branding and design intern Ms Sabrina Munafo. Photo: Melissa Di Ciero

Monash University honours graduate in visual communications has recently returned from a twomonth internship in Seoul, South Korea, with global branding and design company Interbrand.

Ms Sabrina Munafo, who completed honours in 2003, was selected from a shortlist of fourth-year students tudying in the faculty of Art and Design at Monach's Caulfield campus.

While at Interbrand, Ms Munafo worked with a creative team and participated in the development of several corporate and brand identity projects in cluding a golf resort, a shoe manufacturer and a high-tech company.

She said the experience had enriched her design and communication skills and had been a highly positive life experien ce.

"Interbrand gave: me: a good taste of what the branding world was about, and especially about designing for a branching comparty," she said. "It opened my eyes as to how different companies approach the design process and how culture influences design.

"The entire experience taught

me a broad range of things about myself - the way I work, the way I interact with new people, the way I interact within a new culture and the way I approach an unfamiliar living environment."

The internship was organised by Mr Russell Klenredy coordinator of the visual communication course Lauffield, in conjunction with Professor Don Chang, a professor of branding and design management studies at the Department of Visual Communications Design at Hongik University in Seoul. Professor Chang is also a director of Interbrand Korea.

"This was a great opportunity for Ms Murafo to work for one of the world's largest brand organisations,' Mr Kennedy said. "It was also a privilege for her to meet and work with a designer of Professor Chang's reputation."

Although the Interband internship program has been in existence for about seven years, Ms Munafo's internship was the first to be offered to an international student.

Ms Munafo's time at Interbrand was overseen by Professor Chang.

"Interbrand hoped the cultural exchange that would take place between the local Korean staff and the young designer would generate mutual energy for creativity as well as add new perspectives in terms of implementing diverse design processes," Professor Chang said...

"Sabrina was selected on a combination of a superty pointfolio and statement of intent that reflected her future ambitions in this profession. We were looking for a proactive: attitude and an open willingness to experience travel and new working environments.

Mr Kennedy is hopeful fixture collaborations between the faculty and other institutions will follow.

Monash is interested in building relationships with individuals and organisations who represent international excellence in the field of design practice and design education. Interbrand, Hongik University and Professor Chang are prime examples.'

- Karen Stichtenoth

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Some young doctors consider geriatric medicine dull, partly because they feel they cannot make any real difference to patient outcomes. The reality, says Professor Workman, couldn't be more different.

Challenging medicine: Professor Barbara Workman with nursing home resident Mrs Mary Brown. Photos: Delwyn Hewitt

# An age-old problem

bstetrics, paediatrics, cardiology, surgery ... the options for specialisation for new medical graduates are many and varied. But over the years, young doctors have steered away from geriatric medicine.

"Traditionally, geriatrics has not been viewed as a very exciting field at all," says Professor Barbara Workman, head of geriatric medicine at Monash University and director of the Monash Ageing Research Centre, based at the Kingston Centre in Cheltenham, south-east of Melbourne.

However, Professor Workman, who lectures at every level of the five-year Bachelor of Medicine degree, is keen to change the negative perception of geriatric care – especially given Australia's rapidly ageing population.

ageing population.

"Geriatric specialists will increasingly be in demand, so we need to encourage more doctors into the field," she says. "And we first must establish why it is less appealing than other areas, so last year we sought and won funding to survey young doctors about their attitudes towards treating older patients and vice versa."

Professor Workman believes the survey of 20 interns and 100 elderly patients, which started in April in hospitals throughout Melbourne, will reveal that some young doctors consider geriatric medicine dull, partly because they feel they cannot make any real difference to patient outcomes.

The reality, says Professor Workman,

couldn't be more different. Older patients often have multiple complex conditions that require careful consideration.

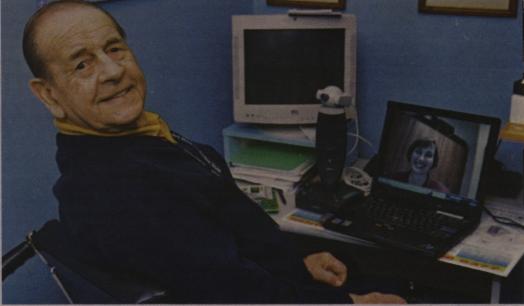
"Elderly people are prone to a range of conditions – from arthritis and osteoporosis to cardiovascular disease, poor vision, continence problems and lack of muscle strength, so geriatric medicine is extraordinarily challenging and interesting," she says.

"In addition, there are increasing

"In addition, there are increasing opportunities for research – clinical research as well as looking at the ageing mechanisms, chronic pain management and various new drug treatments for dementia, the most debilitating geriatric condition."

Professor Workman, who coordinates the undergraduate teaching of geriatric medicine at Monash, says the new five-year medical course, introduced in 2002, has an increased emphasis on geriatric conditions as well as social, legal and ethical issues in medicine.

"We believe the graduates will come out with a more humane perspective," she said. And to check if the revised curriculum has made a difference to attitudes, the survey of young doctors and elderly patients will be repeated in 2007, when the first graduates of the new course become interns



Pain relief: Nursing home resident Mr Ben Boyson is one of the first people to receive a video conferencing consultation from Professor Workman.

ain management is one of the biggest challenges facing geriatricians and is a particular interest of Professor Workman, who is also director of the Pain Clinic at Kingston Centre.

In an Australian first, she is pioneering a way of consulting frail patients without them having to leave their nursing home beds – through video-conferencing.

Nursing home patients are generally only seen by general practitioners who regularly visit the homes. However, patients often need specialist care for chronic pain.

"At the pain clinic, we are often asked to see nu rsing home patients — the frailest, most vulnerable and most complex patients in our communities," Professor Workman said. "But we found we couldn't get to the many pe ople who needed specialist care, and the trauma, time and cost involved in transporting fail elderly patients to pain management clinics was just coo great."

So she came up with the idea of using video-comferencing as at solution. With \$50,000 funding from a Department of Health and Ageing; innovation grant, she has begun testing the idea, using technology to provide bedside' consultations to patients at Kingston. Apart from a few teething

problems such as lighting, background noise, camera and screen positions at both ends, the strategy seems to be working.

"I have been able to provide full consultations, talking with the patients about their conditions and where they're experiencing pain – and I can also see if a patient is wincing but claiming she does not have pain in a particular area," Professor Workman says. "And the patient can see me, which is equally important for credibility and feeling comfortable."

The clinic is also exploring the possibility of using video phones for the consultations, which can provide top-quality images. Professor Workman and her colleagues are evaluating the success of the video-conferencing by surveying; both the patients and nursing home staff.

The next step will be to apply for funding to expand the program – not just for pain management but also for a range of conditions affecting elderly patients.

conditions affecting elderly patients.

"The physical, enotional and financial savings for patients, their families and the health care system could be enormous,"
Professor Workman says.

- Allison Harding,

#### Contact

barbara: workman@med.r.mash.edu.au or her deputy, Associate Professor Peteris Darzins, at: peteris.darzins@med.r.mash.edu.au Ph: +61 3 9265 1-426.



Answering the call: Advanced trainees Dr Jacqueline Gilbert (left), and Dr Simone Steel, with patient Mr Monty Kirkwao à, are finding geriatric medicine a challenging field.

## Risk alert on boating and water sports

Accident research

The under-reporting of injuries from boating and water sport accidents is disguising the extent of the problem in Victoria, a new report from the Monash University Accident Research Centre (MUARC) has found.

The latest edition of *Hazard*, published by the Victorian Injury Surveillance and Applied Research System (a project of MUARC), provides an overview of deaths and injuries associated with Victoria's popular water-based recreational activities.

The report is the first comprehensive look at data from a number of sources, including the Marine Incident Database, the National Coroners' Information System and the Victorian hospital-based injury surveillance databases.

Activities covered include recreational boating, water skiing, personal watercraft riding, rowing, canoeing, kayaking, sailing, rafting and kitesurfing, as well as scuba driving and snorkelling. The injuries and deaths occurred in both coastal and inland waters.

The report revealed there were 18 deaths (all



drownings), 205 hospital admissions and at least 517 emergency department presentations for injuries between July 2000 and July 2002.

But senior research fellow at MUARC Ms Erin Cassell said many injuries were being missed because several large hospitals in popular water sport areas — including Sandringham, Wodonga, Swan Hill and Hamilton — have only recently been included on the emergency department database.

The study also found that of those who

recreation: water sports come with high

**Photo: Newspix** 

■ 44 per cent were fishing from a boat, 28 per cent were boating, 17 per cent were kayaking or canoeing, and 5 per cent were riding a personal watercraft;

■83 per cent had a personal flotation device

available for use, however only 28 per cent were wearing one when retrieved from the water;

alcohol was involved in 28 per cent of cases.

The study also found that males represented more than three-quarters of those injured and over 90 per cent of deaths.

Ms Cassell said boating and water sport enthusiasts needed to be aware that injuries can be catastrophic, mainly due to the speed involved, for instance in water skiing and personal watercraft riding. "Serious head and spinal injuries, leg fractures, sprains and strains of knees and ankles, and open wounds to the face and head are among the most common injuries resulting from boating and water sports."

resulting from boating and water sports."

Ms Cassell said the report highlighted the need for further research on causes and preventive strategies, particularly given the popularity of boating-related sport and recreational activities in Victoria.

- Allison Harding

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## Asia's challenges become a focus for research

Asia Institute

The Monash Asia Institute (MAI) is about to begin collaborative research projects to improve literacy and learning and reduce mass poverty in Asia, following its first annual international conference in Mumbai, India, earlier this year.

MAI director Professor Marika Vicziany said the conference, on cultures and technologies in Asia, included a core of about 50 scholars and Asian experts from Australia, India, Malaysia, Japan and Finland who exchanged ideas and research papers. The academic disciplines represented included anthropology, medicine, sociology, Asian studies, chemistry, law, education and information technology.

Also in attendance were representatives from a number of leading Australian and Indian companies including Ansell, one of the world's largest producers of barrier products; Tata Group, the third largest Indian business house; Netcore Solutions, a major Mumbai-based IT company; and Delhi's NIIT, the world's largest trainer of IT labour at all levels.

Professor Vicziany said the three-

day conference in mid-February was a highly focused event that brought together influential academics in the field of cultures and technologies in Asia.

"The emphasis was on an intense exchange of intellectual ideas, with the key objective of developing research collaborations with leading scholars in Asia, and several such collaborations have now been set up," Professor Vicziany said.

"Professor Hussein Alatas and

"Professor Hussein Alatas and Professor A. B. Shamsul, based at the University of Kebangsaang in Malaysia, both influential thinkers about the impact of colonial rule on the long-term development prospects of Asia, have agreed to work with the MAI in developing a series of papers about Orientalism.

"Orientalism describes an approach to the study of Asia that either glorifies or condemns Asian society and values. The new series seeks to establish a critique of Orientalism and a more balanced assessment of the interaction between Asia and 'the West'.

"One of India's best known economists, Professor AK Bagchi, director of the Institute of Development Studies in Kolkata, will be collaborating with us on a project using IT to improve mass literacy and learning in Asia. "And the MAI will also be

"And the MAI will also be working with the University of Helsinki's Dr Sirpa Tenhunen, a leading specialist on rural poverty, on research about the potential of IT to reduce mass poverty in rural Asia."

Professor Vicziany said another important outcome of the conference was the establishment of an Asia on Asia Network involving the MAI, the University of Kebangsaang, Monash University Malaysia, the Kolkata Institute of Development Studies, the University of Pune in western India, Jawarhalal Nehru University and the University of Mumbai. It is planned to increase the network to include further key research centres in other Asian countries including Thailand.

"The next international conference of the MAI will take the form of the first Asia on Asia Network conference in 2005 and will be the basis of further collaborative research projects," she said.

- Michele Martin

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Photo: Melissa Di Ciero

Marriage and partnering rates plummet

A report into the decline of marriage and partnering in Australia was launched late last month at the North Melbourne offices of the Australian Family Association, which commissioned the report.

Director of Monash University's Centre for Population and Urban Research Dr Bob Birrell (pictured at the launch) co-authored the report with Monash colleagues Ms Virginia Rapson and Ms Clare Hourigan.

Based on census data, the report, titled *Men and Women Apart – Partnering in Australia*, revealed that marriage rates and the overall level of partnering among Australian men and women aged 30 to 34 had plummeted over the past decade.

The figures showed that in 1986, 72 per cent of women and 65 per cent of men aged 30 to 34 were married, but by 2001 the comparable figures were 55 per cent for women and just 47 per cent for men.

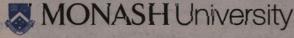
According to the report, most of the partnering decline among women occurred in the ranks of those without university degrees; for men, the partnering decline was most marked among those on low incomes who were also largely without university degrees.

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