UNIVERSITY OF

Otago MAGAZINE

ISSUE 18: OCTOBER 2007

SCIENTISTS WAGE WAR AGAINST DEADLY VIRUSES

DR HOCKEN'S SIGNIFICANT LEGACY

FOOD MILES: DO THEY GO THE DISTANCE?

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[1] *Ministry of Research, Science and Technology. Research and Development in New Zealand. (Wellington, 2006)*

[2] *Tertiary Education Commission. PBRF Quality Evaluation 2006. (Wellington, 2007)*

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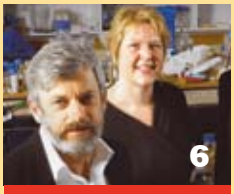
CONTENTS

MAGAZINE

UNIVERSITY OF OTAGO



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Recently I attended a colourful ball at Larnach Castle. Its purpose was to celebrate the fact that, for the first time in our history, more than 1,000 people are enrolled for the PhD degree at one of the three main campuses of the University of Otago. The first University of New Zealand PhD earned through Otago was conferred in 1927, and the total number of PhDs awarded in the subsequent 80 years was only 2,228. Already this year 1,055 PhD students have enrolled.

This illustrates not only the growth of the University, but also its transformation. In earlier days New Zealand universities were rather like liberal arts colleges, with some notable special schools included. Today Otago is New Zealand's most research-intensive university. Unlike some universities, we are very particular about whom we accept for PhD study, yet Otago has the highest proportion of postgraduate research students of any university in the country.

An expansion of postgraduate research is essential if New Zealand is to maintain its economic and social development. Unfortunately we are constrained by the abysmal level of investment in research in this country. Not only is our GDP per capita relatively low, but the percentage of that GDP invested in research is well below the OECD average. A report just published by the OECD concludes that New Zealand's total R&D intensity (the ratio of gross expenditure on R&D to GDP) is at 1.14 per cent, which is about half the OECD average of 2.25 per cent.

Despite such handicaps, two exciting developments are featured in this issue of the magazine. On page 29 we announce that our Leading Thinkers initiative has reached its target of raising $50 million, with six months to spare. The generosity of philanthropists (including several of our alumni) and trusts has meant that we can create new posts for research leaders.

Secondly, the University has been able to purchase a hotel complex on an extensive site in North Dunedin as a base for New Zealand's first residential college for postgraduate students (page 39). Abbey College is situated between Castle and Cumberland Streets, over the road from an establishment well known for philosophical discourse, the Gardens Tavern.

Providing dedicated accommodation for postgraduates reflects our aim to offer an outstanding campus experience for all categories of students. Unfortunately, the media tend to focus on occasional undergraduate excesses – such as the loutish behaviour following the Undie 500 event in August, when 1,200 Canterbury students converged on North Dunedin. I am glad to report that, following the introduction of a Code of Student Conduct and a Campus Watch service, such eruptions are now rare. North Dunedin is a remarkably safe environment for the 20,000 young people who come to this University to study and learn about life.

Professor David Skegg *Vice-Chancellor – University of Otago*

Professor Andy Mercer, Dr Sarah Young, Professor Kurt Krause and Dr Merilyn Hibma: "The aim of the project is understanding the virus-host interaction and using that information, first, to combat viruses or, second, to exploit them for beneficial purposes."

Photo: Alan Dove

Viral warfare

IN THE SUBVERSIVE SUBMICROSCOPIC WORLD OF VIRUSES, AN ACE TEAM OF UNIVERSITY OF OTAGO SCIENTISTS IS PLANNING BIOCHEMICAL STRATEGIES TO BEAT THE DEADLY BUGS AT THEIR OWN GAME.

IN THE MAZE of small nondescript laboratories and boxy offices that conceal the beating heart of Otago's Departments of Microbiology and Immunology and, across the way, Biochemistry, a battle plan is being formulated.

Confronted by a formidable, fiendishly cunning foe, a team of crack scientists – a sort of bio-molecular covert operations group – is hard at work, studying the enemy, its habits, how it operates, its structure and the possible entry points for counter-insurgency.

Says Professor Andy Mercer, Director of the University's Virus Research Unit: "In some larger viruses a lot of the genes are not simply about replicating or making other virus particles. They are about manipulating us.

"They have a core of genes which are the 'housekeeping' genes – they do the replicating and expressing – and then they have 20 to 40 genes that they use to manipulate us, by suppressing our immune responses.

"Quite a few of those are clearly genes the virus has actually stolen from us. But it hasn't just taken them. It's taken them and adapted them so that they do exactly what the virus wants them to do …"

Welcome to the subversive submicroscopic world of viruses, the survival mechanisms, replication and invasive strategies of which are very much at the heart of a new Health Research Council-funded programme, Human Pathogenic Viruses: Drug Targets and Therapeutic Potential.

Led by Mercer out of the University's Department of Microbiology and Immunology, but incorporating Biochemistry, the project represents a major offensive against the hidden enemy. Virologists and structural biologists are not taking the threat lying down.

"It's a three-year programme with a possible extension, has four lead researchers, 10 named investigators, three external collaborators, six research assistants and 21 current PhD and master's students associated with it."

That's quite some intellectual firepower.

"There's a spectrum of expertise – younger, older, a range of skills in different areas and even a gender balance," adds Mercer.

"The aim of the project is understanding the virus-host interaction and using that information, first, to combat viruses or, second, to exploit them for beneficial purposes.

Each of the four projects within the programme shares the goal of developing new antivirals and other viral-derived therapeutics."

Expanding on the theme Mercer says: "Our research focuses on major human viruses which cause devastation by taking control of the molecular biology of our cells. By examining the strategies these viruses use to attack critical elements of our defences, we gain important insights into previously unknown aspects of viral biology and our own physiology."

Part of the impetus for the programme comes from the widely-accepted thesis that we have, over the past few decades, let our guard down against infectious diseases. The Western world has become a bit blasé, despite the evidence that around one third of all deaths worldwide are still due to such diseases.

"In the last 30 years, WHO has recognised 50 new human pathogens," says Mercer. "We shouldn't get lulled into a false sense of security that down here at the bottom of the South Pacific we are somehow excluded – or safe – from that."

We all need to be reminded, he says, that infectious diseases – whether it's SARS, HIV, Ebola, H5N1 bird flu or whatever the next viral pathogen happens to be – remain a very serious health risk and we can't just rely on these issues being solved somewhere else.

"There is a very small virology workforce in New Zealand. The HRC funding for this programme recognises the importance of having, in addition to border control and public health measures, an active research-trained and laboratory-trained workforce to help us combat these threats.

"While it's easy to get panicky about something like H5N1 and say, right, everyone should be working on that, the problem is that the new virus will almost, by definition, be new. So, if we are all busy focusing on one little thing, we won't be ready for it.

"We need to have a broader skill base that knows how to handle these viruses and can adapt, analyse and think about ways to combat them."

Leading the programme's charge on combating viruses are Professor Kurt Krause (below), a clinical specialist in infectious diseases whose scientific specialty is structural biology; and Dr Merilyn Hibma (page 10), a virologist working on human papilloma virus which has a direct causal link with cervical cancer.

Says Krause, who arrived at the university from Houston, Texas, a little over 18 months ago: "One of the neat

UNLOCKING THE MYSTERY

"WELL, THIS IS WHAT is so amazing. HIV makes a very small protein called Vif – viral infectivity factor. What Vif does is it goes into the cell when HIV infects us and it finds this APOBEC (a protein that protects against viruses) because it knows this APOBEC is out to destroy it.

"So it goes up to Mr APOBEC and says, 'I kinda want to talk to you for a minute', and it binds to the APOBEC and at the same time it grabs hold of the cellular machinery that breaks down proteins and binds to that, too. So it brings these two proteins together, so that the APOBEC, which was going to defend us, ends up getting degraded … and infection can take place.

"Isn't that the most amazing thing? So HIV has evolved to circumvent – and I don't mean to anthropomorphise this too much, but it's just so fascinating – and attack the very protein that could have defended us!"

If enthusiasm were a measure of likely success, then all those dastardly viruses out there would be on a hiding to nothing. Get Professor Kurt Krause going on his favourite subjects and he's like a kid in a sweet shop.

But Krause has more than enthusiasm to his name. A medical doctor who is also a highly respected academic PhD from Houston, Texas, has worked with HIV/AIDS over a number of years on two different cohorts of patients. He is now a structural biologist and protein crystallographer in the University of Otago's Department of Biochemistry, and an expert in determining the shape and structure of cell proteins – with a close interest in those that are involved in or connected with pathogenic processes.

"I'm very interested in how proteins work because they are the machines that run the body. And I have a particular interest in the machines that are important in infectious diseases – sort of nano-machines if you will.

"These machines are essential so if you create a compound that will block their activity, then the organism can't replicate and the disease is cured or treated."

Krause, something of a biological locksmith, invokes the metaphor of a lock and key when explaining how his work relates to combating viruses such as HIV. He holds up a picture of a complex 3-dimensional protein molecule and

Part of the impetus for the programme comes from the widely-accepted thesis that we have, over the past few decades, let our guard down against infectious diseases … despite the evidence that around one third of all deaths worldwide are still due to such diseases.

synergies of my being here now, when we were sketching out this project, I was sitting with Andy Mercer and it turns out that the virus he studies, Orf, has proteins that do very similar things to the proteins in HIV."

"And it's not all bad news with viruses," says Mercer. "Two of the four projects have a major element of exploiting the knowledge we gain from viruses, or even using viruses themselves as tools."

A case in point is the work of the fourth lead researcher, Dr Sarah Young. She is investigating anti-cancer vaccines, based on harmless virus shells, called Virus-Like Particles (VLP), as novel and effective vehicles to deliver immunising tumour proteins.

More specifically, her project proposes to test VLP attached to proteins from colorectal tumours, cervical tumours and melanoma as vaccines against these cancers; to investigate whether the progression of pre-existing cancers can be delayed by treatment with VLP attached to tumour proteins; and to test on human cells VLP vaccines that work on mice, initiating translation of the work to the clinic.

Mercer's own work is related and also involves exploiting viruses for the treatment of other human diseases – can we take viral proteins and use them to combat other diseases and pathologies?

His investigations of the Orf virus, which produces an affliction called scabby mouth in sheep, but is also found

explains: "What this is, in essence, is a picture of a lock that a locksmith can use to design a key.

"In each of these structures there is an active site which is usually a cavity on its surface and this cavity has specific characteristics, charge and shape.

"So if you had a molecule that would fit into this cavity and be complementary in shape and charge, and if it's very complementary it's a very tight fit, then that is potentially a good drug.

"We work very hard to get pictures of these targets and then try to find molecules that will fit inside them – most antibiotics work this way."

A big problem now with HIV/AIDS is that it remains a global pandemic and is becoming more resistant to available treatments. To return to the sweet shop … and those APOBECs.

"It was fairly recently figured out that humans contained a system that is quite good at preventing HIV infection and that system involves a series of proteins called APOBECs," explains Krause.

"When a virus like HIV tries to infect the cell, some members of the APOBEC family have the ability to sense this and to alter the nucleic acid replicating code of the virus – which renders it inactive and blocks the infection. It's actually really cool!"

But of course, as we know, a virus like HIV has a few tricks of its own – including the viral infectivity factor.

"So what we want to do is understand the nature of the molecular interaction between Vif and APOBEC … and then use protein crystallography to get an actual 3-D structure. Then we can use that to see if we can block the interaction using a small molecule or some kind of inhibitor.

"If Vif weren't able to bind to the APOBEC," says Krause with an enthusiastic glint in his eye, "then the body would be able to block HIV infection and there would be another treatment for HIV."

It's enough to make you feel almost sorry for the viruses.

in humans, has identified a human growth factor gene, vascular endothelial growth factor, or VEGF, that the virus has succeeded in stealing.

VEGF is critical in situations that require a free blood supply, such as healing wounds, but has also attracted attention as a target in tumour therapy because inhibition of VEGF strangles tumours by cutting off their blood supply.

"Then there are chemokines – 'hormones of the immune system' – which are responsible for recruiting immune cells into the site where the body needs them," explains Mercer. "The virus produces and secretes chemokine-binding protein which goes out there and mops up chemokine and prevents it from working.

"We have pathologies that result from inappropriate or excessive immune system response," explains Mercer, "so if you could use some of these immune-dampening molecules of the virus such as chemokine-binding protein, which stops recruitment of immune cells into the sites, then this may be a way of using them in a positive setting."

Mercer cites a range of conditions and situations where there may be potential application for virus-derived therapeutics, including in healing wounds, arthritis, asthma, tumour growth and transplant rejection.

He explains, for instance, that the scarring that occurs following classic traumatic skin wounds is the result of too much inflammatory or immune system reaction. There is a need for balance between growth of skin (as promoted, for instance, by VEGF) and inflammatory response.

"Could we take viral VEGF which works to stimulate growth but not inflammatory reaction – perhaps in combination with other anti-inflammatory agents such as chemokine-binding protein – and treat skin wounds to achieve accelerated but scarless healing?"

It's an intriguing line of thought and one that is well on the way to becoming practical reality in certain bio-medical specialisms.

Viruses are remarkable for their ability to modify specific molecular structures and functions of the host's cellular protein and turn these to their own advantage. The work of the University of Otago's Viral Research Unit, with its new HRC-funded programme, is making strides towards beating these deadly pathogens at their own game.

Simon Cunliffe

DETECTING THE ENEMY WITHIN

IT'S A KIND OF "sleeper" virus that exists unseen typically in about 10 per cent of the female population. In some countries it is as high as 20 per cent. It attacks the skin and mucus membranes and can survive as a parasite in the body for years.

Human papilloma viruses (HPV) give rise to a number of carcinomas and are a major cause of cervical cancer – which claims about 250,000 lives worldwide each year.

"With HPV we are really interested in how it is avoiding detection by the immune system," explains Dr Merilyn Hibma, "because we believe if we can understand that, we can therapeutically alter the environment so that the virus will be seen and people can naturally resolve the infection."

Hibma's work focuses on HPV regulation of cell-adhesion and how this contributes to immune system evasion. Understanding these mechanisms could offer opportunities to develop new anti-HPV therapeutic interventions to target pre-cancerous HPV-infected cells. It might also generate knowledge relevant in broader fields of cancer research.

"The HPV virus affects the antigen-presenting cells in the skin – the cells normally associated with producing an immune response – in such a way as to help it remain hidden in the host," says Hibma.

"What we want to know is how the virus regulates the environment to do that?"

Her research has particular interest in the adhesion molecule E-cadherin – the molecule that is regulated by the virus on the surface of the cells and interacts with the antigen-presenting cells.

While a vaccine for HPV already exists and has "huge potential", it also has limitations. It is effective against about 70 per cent of cases due to a number of different HPV strains – hence the importance that women, even if vaccinated, should still attend cervical screening. And there are those populations in New Zealand which are not good at attending cervical screening and are at high risk.

Hibma's work is aimed at less invasive treatments for those with pre-cancerous HPV-infected cells.

"We would be looking at a therapeutic treatment, for example, a cream for those people who have a detectable disease. At the moment they are treated using ablative [cutting out or burning] therapies, which can be quite destructive."

Of historical significance
The Hocken legacy

Photo: Hocken Collections

Dr Thomas Morland Hocken in the library at his home, 1893.

OTAGO CELEBRATES 100 YEARS OF ONE OF NEW ZEALAND'S FINEST RESEARCH COLLECTIONS.

ENTERING THE HOCKEN LIBRARY involves a ritual that falls somewhere between preparing for something surgical and something spiritual.

One is relieved of trappings – bags, coats and pens. Food is forbidden, soft pencils are provided. Tones are hushed.

Staff are wise and kind, and go to extraordinary lengths to track down items no matter how old or obscure. They will lead you to troves of Colin McCahons and Bill Hammonds. Microfilm newspapers have minds of their own and will whiz through the months at a crazy pace. It's very easy to lose track of the time.

The name "Hocken" is known across campus, even by those whose student years never gave them the joy of whiling away an afternoon at the library that bears this name. And now, with works ranging from 17th century maps to CDs of the Bats, it's fair that to say merely that the Hocken is turning 100 is not telling the full story.

What the University is celebrating is the drawing up of the official deed of trust, in September 1907, that gave to the University the historical collection of one of Otago's best-remembered visionaries, in trust for the people of New Zealand. It subsequently became the foundation of one of New Zealand's finest historical collections.

Dr Thomas Morland Hocken – "a short, dapper, energetic little man" – trained as a medical doctor in England before emigrating to Otago, arriving in 1862. He set up practice as a general practitioner and held the role of the city's coroner for 22 years.

Hocken's medical career suggests something of his initial interest in practical science and the human condition, but that was just the beginning – Hocken became an enthusiastic, obsessive collector of documentary items relating to New Zealand and Pacific history, and Māori and European settlement.

Hocken was not a wealthy man, so his methods depended on his resourcefulness and extremely personable nature. He was, according to Hocken Librarian Stuart Strachan, a very active collector through personal solicitation – he asked early settlers, their widows and descendants for their books and papers, and they responded generously.

His pursuits were ably assisted by his second wife, Bessie Buckland – connected to an important land-owning Otago family – think Buckland's Crossing. (Hocken's first wife, troubled with alcohol problems, died young.)

He amassed these treasures in his Moray Place house (now the site of the old RSA building, opposite First Church). Among them were several famous paintings, including James Smetham's *New Zealand Chiefs in Wesley's House 1863* depicting visiting Māori being entertained in suitably English fashion. Other curiosities included the journal of Dunedin's first gaoler Henry Monson; a plan of Kawiti's pa at Ruapekapeka, Northland; and an intriguing collection of early Sydney and Tasmanian newspapers. In all, there were approximately 6,000 printed volumes.

In 1897, Hocken announced his intention to gift his collection to the public of New Zealand and, 10 years later,

Photo: Hocken Collections

The New Zealand Chiefs in Wesley's House, *by James Smetham, 1863.*
Oil on canvas, from Hocken's original collection.

he signed the trust deed that set out the conditions which continue to guide management of the collection today.

These demanded a high duty of care to ensure the security and preservation of the collection. Members of the public had right of access. No loaning of works was to be permitted "under any circumstances whatsoever" – Strachan tells that "more than one vice-chancellor (not the present one) has had to be declined" in the interests of upholding this standard. And access was to be "without any fee or charge".

Any varying of these stipulations would require a submission to the High Court of New Zealand. The University has done so only once: in 1966 to enable works to be loaned for the purposes of other institutions' exhibitions.

When the collection was opened in a wing of the Otago Museum (then a University institution) in March 1910, it was heralded as a watershed moment for the preservation of New Zealand history. The event was attended by the Prime Minister, Sir Joseph Ward, and the Governor, Lord Plunket. Hocken, however, was too ill to attend the opening. He died six weeks later.

Early on, the University made the decision to regard the body of works as a "living collection". That is, it would add to the original collection.

It was a decision successive administrations embraced. Hocken donated 6,000 published books; the collection now has 250,000. Originally, manuscripts took up three bays of shelving; they now take eight kilometres worth.

Strachan says there are several figures to thank for the richness of today's collection.

One was Dr H D Skinner, Curator and later Director of the Otago Museum during the 1920s and '30s, who "took the collection under his wing". He added to it significantly and conscientiously ensured the items were cared for.

Another was John Harris, University Librarian, who, in 1936, arranged for the collection to become a part of the University Library so that its future care and protection would be guaranteed.

Later, from the 1950s, Dr Charles Brasch made full use of his position as a member of the Hocken Library Committee and chair of the pictures subcommittee. Unimpeded by any strategic plan, he, with his good friend Rodney Kennedy, had a vision of converting the collection of historical paintings to an art museum of national significance.

Photo: Hocken Collections

The Terra Nova at the Ice-Foot, Cape Evans, 1911, by Herbert Ponting (Robert Falcon Scott's Antarctic expedition). Carbon print.

Brasch gave works from his own collection, convinced others to do the same, and gave money for their purchase. He secured items by figures ranging from Rita Angus to Toss Woollaston to Milan Mrkusich, collectively telling the story of New Zealand's move to modernism and its coming of age as an artistic nation. It was Brasch's example, says Strachan, which was responsible for the collection being given so many works by Colin McCahon and his family.

Now known as the Hocken Collections, it has also expanded to become a repository for New Zealand contemporary music from the 1960s – and is a veritable must-visit for anyone interested in the "Dunedin sound" of the 1980s and '90s. It holds many records of Otago's commercial history, with archives dating from the 1830s to now, including those of such notable ventures as the Union Steamship Company and National Mortgage.

It's a constant judgement, notes Strachan, to identify what records will be interesting in the future. "Should we be seeking the records of Dunedin fashion houses, for example?" he wonders.

And now, further questions are posed regarding future-proofing the collections for a digital age.

The challenge falls in two parts, explains Strachan. There are documents that were "born digital", like email

records, academic data sets and meeting minutes received on disk – hard copy versions have never existed. "Sometimes we just print them out, but it's a huge job," Strachan comments. Then there is the growing demand to create electronic versions of existing archives, enabling researchers simply to bring up on-screen the items they are interested in.

This may open up the prospect of allowing a far wider pool of researchers access to the Hocken's treasures. But it would be no mean feat to digitise eight kilometres of manuscripts and, even then, the problem of keeping up with advancing technology has still to be resolved. "The whole issue would take a lot of management and resources," comments Strachan. A start has been made, however, with pictorial collections through the recent launch of the University Library's new digital collections site.

All the same, the move to digital technology may open up some rich new sources for scholars. While, Strachan says, the advent of the telephone was bad for historians – "a lot of important conversations were lost" – the rise of email may be reversing this trend, rendering greater quantities of dialogue preserved in written form. (Any takers for nominating the five emails you'd least like to have preserved for posterity?)

Today, the collections receive approximately 10,000 research visits per year. They include researchers from among Otago's staff and students, as well as academics from around the country and beyond. It's a second home to any number of local historians and has become a happy hunting ground for genealogists. It regularly hosts visits from local schools, and enjoys collegial relationships with the Dunedin Public Art Gallery, Otago Settlers Museum, Otago Museum and the School of Art. The Hocken Gallery is used as an exhibition space for both historical works from the collections and for practising artists, while the library holds the annual Hocken Lecture and is used to launch books of local and cultural significance. It also publishes with the Art History Programme the *Journal of New Zealand Art History.*

The University has much to celebrate about Hocken's legacy. It has, at the age of 100, aged very well indeed.

Nicola Mutch

Photo: Bill Nichol

HOCKEN CELEBRATIONS

Until 2 November : Treasures from the Hocken Collections exhibition.
30 October: Launch of *Kā Taoka Hākena:Treasures from the Hocken Collections* book (see page 44).
The third 2007 Hocken Lecture will be given by Professor Helen Leach (Anthropology), 29 November.

Food miles: mistruths and misconceptions

SIR NICHOLAS STERN'S recent review of the economics of climate change predicted a bleak future for the global economy if the world fails to cut back emissions of greenhouse gases. Against this backdrop, former UK cabinet minister Stephen Byers asserted that flying one kilogram of kiwifruit from New Zealand to Europe results in the release of five kilograms of carbon dioxide into the atmosphere. Such statements have rekindled "food miles" arguments for trade restrictions, particularly in the UK.

Food miles measure the total distance travelled as food is transported from its place of origin to consumers' plates. The calculation may include kilometres travelled as food is shipped from farms to processors, from processors to storage depots, from storage depots to vendors and from vendors to consumers. Greenhouse gases (mainly carbon dioxide, CO_2) associated with food transportation have prompted many commentators to argue for barriers to food trade and/or for consumers to buy local produce instead of imported alternatives. Due to its geographical isolation and large quantities of agricultural exports, New Zealand is particularly vulnerable to such restrictions.

Although there is little doubt that increased CO_2 emissions are harming the environment … simply taxing imported food is not the solution.

Although there is little doubt that increased CO_2 emissions are harming the environment (and therefore corrective action such as a carbon tax is needed to curtail pollution), simply taxing imported food is not the solution. An accurate assessment of the environmental friendliness of food from different countries should evaluate CO_2 emissions during the product's entire lifecycle (sowing, growing, harvesting, packaging, storage, transportation and consumption).

Researchers at Lincoln University have conducted such an analysis. They found that, having accounted for CO_2 emissions from production and transportation, New Zealand lamb and dairy products supplied to UK supermarkets generate, respectively, around one-fourth and one half of the CO_2 generated by the supply of UK alternatives.

A major contributor to New Zealand's relative CO_2 efficiency in dairy production is that UK cows consume a significantly larger amount of grain-based supplements and fodder than their New Zealand counterparts. For lamb production, UK producers emit large quantities of CO_2 because they use more than 13 times more nitrogen fertiliser per hectare than Kiwi farmers. Overall, these figures highlight New Zealand's natural advantage in agriculture and indicate that a shift in UK consumption away from Kiwi foodstuffs, which are transported nearly 18,000 kilometres, towards domestically-grown alternatives would increase (rather than decrease) CO_2 emissions.

It appears that European farm lobby groups are using food miles arguments as a guise to replace protection offered by the EU's trade-distorting system of export subsidies, rural development grants, direct aids and market support known as the Common Agricultural Policy.

If Europe is serious about reducing CO_2 emissions, all CO_2-emitting activities should be taxed, including food and non-food production and transportation. A tax on all CO_2 emissions may, due to the relative energy efficiency of Kiwi farmers, improve New Zealand's competitiveness in Europe. A food miles tax or a change in preferences towards local produce, however, may result in greater environmental damage by encouraging European consumers to purchase energy-intensive domestic varieties. Economically and scientifically "food miles" don't go the distance.

Dr Niven Winchester
Department of Economics, School of Business

A stash of good memories

YOUR UNIVERSITY DAYS INFORM WHAT YOU BECOME, SAYS LACHIE RUTHERFORD. SO HOW DID THE LONG-HAIRED BASS GUITARIST, BAND MEMBER AND RELUCTANT '70s LAW STUDENT RISE TO THE TOP OF THE ASIA PACIFIC CORPORATE MUSIC SCENE?

IT'S A LONG WAY from playing in a Dunedin pub band to becoming one of the most influential music business figures in the Asia Pacific region, but Lachie Rutherford has nothing but good memories and high praise for his student days at the University of Otago.

"I always look back on Dunedin as one of the best periods of my life," he says over the phone from the Hong Kong offices of Warner Music's Asia Pacific division.

"Times like that inform what you become; you are at a crucial time of your life, you're 19 and you're like blotting paper.

"Dunedin and the University was a very textured community, with lots of very strong, interesting personalities, plenty of challenges and brain power.

"We used to go out and play darts at somewhere like the Captain Cook, and you'd be playing with someone like Ralph Hotere. He never said what he did, you never said what you did, you just chucked darts and drank beer.

"It was a very inclusive community, very creative, varied and half your mates were students and half were working-class guys you played darts with."

Rutherford had arrived in 1969 to do a Bachelor of Arts degree and ended up with a BA (1972), an LLB (1974), a band ready to conquer Australia – if not the world – and a suitcase full of unforgettable experiences.

"I came down from Christchurch to go to University and the difference between the two was amazing.

"When I left Christchurch I was a bass player in a band wearing white frilly shirts and polished red shoes and backing Lee Grant who was a pop icon at the time …"

He fell into a quite different, more "earthy" environment, characterised by a University that was at the core of the city that hosted it, orientation weeks, woolstore hops and a large student community.

"You know what it's like: in a year's time your hair had grown two feet and you'd found the blues."

Those were the days of bands such as Chicago and Jethro Tull, he recalls. People, including, of course, the students, were pushing the boundaries between jazz and rock.

"I was in a band called Anthrax which had a big brass section. We had a trumpet player called Eddie Lee who is now a top brain surgeon in Auckland. And there was a sax player called Robin Mohi. We were playing stuff like Herbie Mann."

He moved on to a band called Stash which, he says, was "driven by the musical talents of Chris Brett, Hodgey (John Hodge) and the wonderful voice of Willie Paul.

"It was really a jam band. It had a big following, but it was a high-risk venture. We just took songs and started jamming. The crowds liked it, but we never did concerts very well."

So, in-between the darts and the music, how did he manage to fit in a double degree, including law?

"I think the law bit pleased my parents and I did enjoy it to some extent, but at the end of the course I realised I was never going to be a practising lawyer.

"I think you have to be passionate about what you are doing, or you are not going to be very good at it. I loved all the moots and so on, but of course I was playing in bands every night of the week …"

President of Warner Music Asia Pacific and CEO of Warner Music Japan Lachie Rutherford: "About 50 per cent of my job is running the business and 50 per cent working creatively with artists."

Photo: supplied

In 1974, his law degree complete, Rutherford left with the band for Australia. They had a couple of years there playing the same sort of "high-risk" edge-of-the-seat music before one of the key band members left. He stayed on, "bumming around", but keeping a hand in the music scene.

But time was marching on with perhaps less than spectacular returns on his academic investments and, in 1979, he returned to Auckland for a couple of job interviews.

"One was for a position as a conveyancing lawyer in Kaikohe." He found the interview about as stimulating as "watching paint dry" and, just after it finished, fell upon a tiny advertisement in the *New Zealand Herald* with the excitement of a dead man walking granted an 11th-hour reprieve.

It was a position as a record salesman for EMI. He was over qualified, of course, but managed to persuade the then head of the organisation to give him a shot.

"I got the job, was given a briefcase with a whole lot of records and a Cortina car, and set off round the country selling music – in places like Kawarau."

As if happened, Rutherford entered the music business at a fortuitous time. EMI, in New Zealand, he recalls, was not travelling particularly well. He rapidly rose through the ranks to become national sales manager, manager of the Auckland branch, and then general manager of EMI New Zealand's music division, all within two-to-three years. By October 1984 he was regional director of EMI Music South-east Asia, where he remained until 1997.

Stash playing at the Heads Ball at Larnach Castle: Lachie Rutherford (left) on bass guitar. Stash was the first band to play live at the Captain Cook.

Photo: supplied

"We opened up companies throughout Asia," he recalls. "In Korea, Taiwan and all over."

Then, in 1998, following a dispute with EMI that saw him with a year's "garden leave", he joined Warner Music.

He is currently President of Warner Music Asia Pacific and CEO of Warner Music Japan. "About 50 per cent of my job is running the business and 50 per cent working creatively with artists."

In Asia music is mostly a pop business he explains. Japan, for instance, has a very strong mobile phone music market. "And the Chinese territories are very commercially focused. If you've got hits, you're making money."

He keeps an eye on what's happening in Australia and New Zealand, occasionally offering advice on a "good taste basis". He also retains his links with the country, particularly the south, returning most years. His mother lives in Christchurch and he has a particular fondness for Central Otago.

He likes to keep his personal musical past separate from his current business obligations, but occasionally is prevailed upon to pick up his guitar. Once was when he returned to Dunedin in 1994 for a reunion, and he hints that there is a 60th birthday of one of his old band mates looming, "so that could be another".

Which brings him back to Dunedin of the early '70s. "There were some great party flats – 689 Cumberland Street, 888 Castle Street. And there were the courtyard parties, the bonfires and the jam sessions.

"Stash was the first band to play live at the Captain Cook. We had a two-year residency. Those were good days … it was hard work academically. No one was very political, we were more into music, although I do recall a sit-in at the Registry in 1970 protesting about the Vietnam War."

So a stash of memories, good memories – a lifetime's worth to keep Lachie Rutherford company as he's scaled musical heights in a stellar career. And it all began as a long-haired bass player in a Dunedin student pub band.

Simon Cunliffe

Who do you call?

NIGEL BARRETT, THE WINNER OF THE UNIVERSITY'S 2007 AWARD FOR EXCEPTIONAL PERFORMANCE BY A MEMBER OF THE GENERAL STAFF, IS THE PHYS-ED SCHOOL "TECHIE" WHO MAKES LIFE EASIER FOR EVERYONE.

AS OUR WORLD becomes more reliant on technology it seems that fewer of us understand the intricacies of the machines that share our lives.

A simple cellphone may be more complex than a houseful of appliances from a few decades ago, and scientific equipment has advanced to the point where researchers may know what they want, but not how to get it. So who do you call? Nigel Barrett, electronics technician.

Barrett's the guru who actually understands the machines that go ping at the School of Physical Education. He not only makes them behave, but he rips them to pieces and rebuilds them better. He fixes things. He invents things. And he's always there with an answer, sometimes even before researchers have come up with a question.

In short, he's the kind of guy everyone wants on their team, which goes a long way to explaining why he's just won the University's 2007 award for exceptional performance by a member of the general staff.

Barrett confesses to being humbled and embarrassed by the award, and considers it a vote of confidence in the whole technical team at the School of Physical Education.

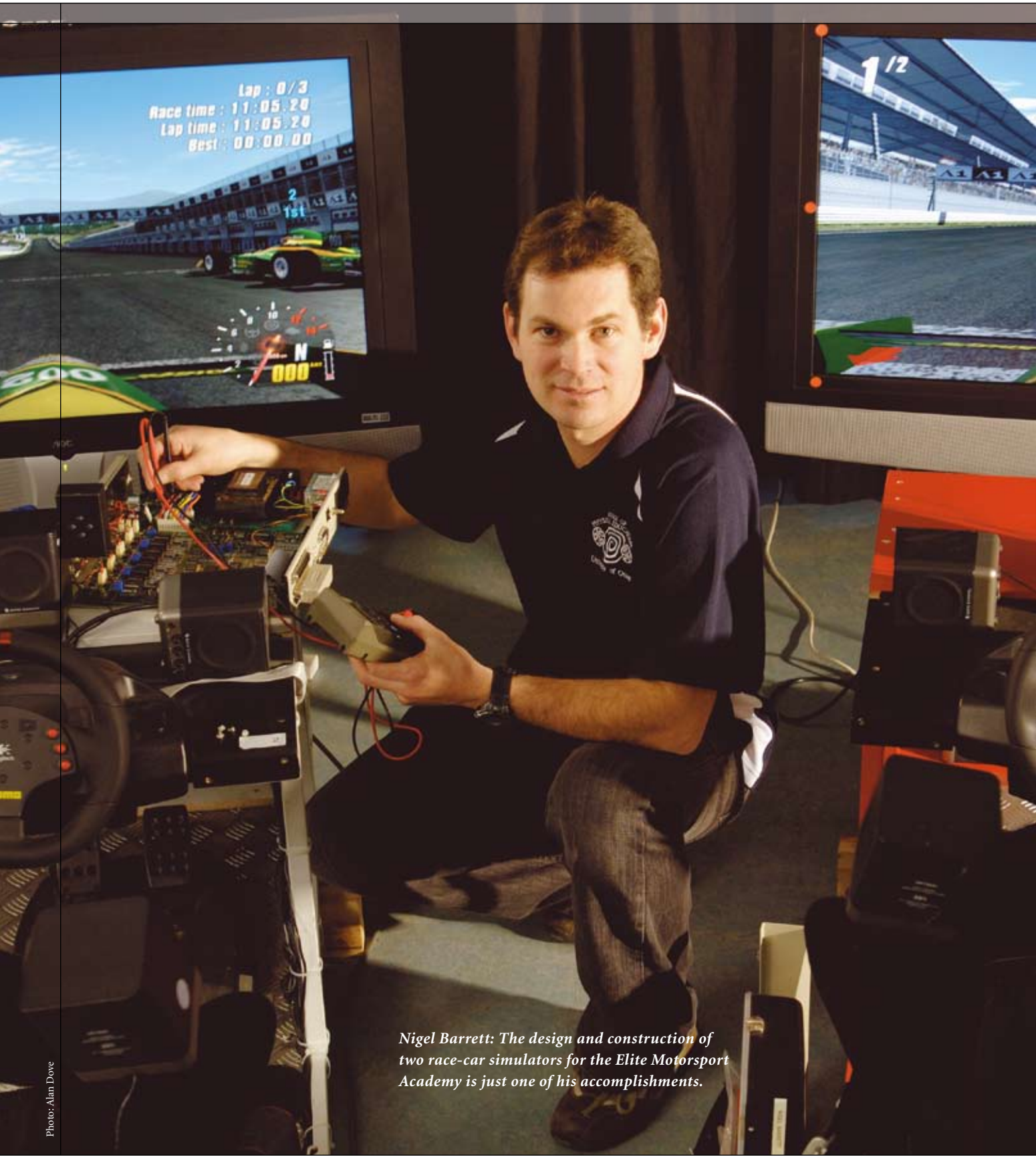
"I don't do this alone. There are nine other technicians. It may be an individual award, but as far as I'm concerned it reflects the work of the team," he says. "I think the award is a great concept for general staff. There is already plenty out there for academics."

Barrett is held in high regard by academic staff. Dr Chris Button, senior lecturer and director of the Human Performance Centre, says he can't think of a worthier recipient, and senior lecturer Dr Jim Cotter admits that Barrett's work "makes my job a hell of a lot easier".

After 16 years in the job, Barrett has made life easier for many staff and students, and been involved with a long list of exciting projects.

He came to the School of Physical Education in 1991 to finish his New Zealand Certificate of Engineering, and has had no reason to consider leaving.

"The best thing about the job is actually the people. You never get stale because there's always a big turnover of new fresh enthusiastic students, and the tech team is just great," he says. "The technicians have a strong voice and they are listened to and respected by academic staff."



Nigel Barrett: The design and construction of two race-car simulators for the Elite Motorsport Academy is just one of his accomplishments.

Photo: Alan Dove

Staff know that Barrett is the one to turn to to get things done, being responsible for maintaining all the electronic equipment and designing new gear as required.

"I've picked up knowledge on the job," he says. "It's changed over the years. Now we combine new machines into existing ones, and the challenge is to make them work together. There's not so much build-it-yourself these days, but it's much more technical.

"The school is like a cross between a gym and a hospital with the amount of electromechanical equipment we have to measure such things as speed, force and power."

Barrett's part of the team that decides what new gear to buy and cost is always a problem, especially for students.

"We do what we need to do to get things done within time and budget. It's frustrating when you know we could do better, but you come up with the best solution for students working within limitations. That's actually a good preparation for real life, having that 'number 8 wire' mentality to be able to patch things together to make them work out of nothing."

Making things work has taken Barrett out of the labs and into the field for a diverse range of projects – from providing logistical support for 10-day student outdoor-education camps in Paradise near Glenorchy, to chasing athletes taking part in the four-day Southern Traverse adventure endurance race, giving technical support to the data-collection team.

More recently he was using a cherry-picker to install a camera high in the roof beams of the Lion Foundation Arena at Dunedin's Edgar Centre. "One of our master's students wanted the camera to track netball players on court during games. Developing the software to record what's happening has got commercial potential."

Barrett's no stranger to seeing the practical applications of research. As an ex-motorcycle racer, one project dear to his heart is the School of Physical Education's relationship with Motorsport New Zealand.

That organisation knew how to encourage potential star drivers with their driving skills, but for everything else, they approached the University.

"We were able to put together a crash course in all the other things they might need as their careers develop, like nutrition and how to handle media. We also ran them through two days of tests at the School of Physical Education. As they drove simulators in an environmental chamber, we monitored them for such things as body temperature and heart rate."

Barrett developed data-logger interfaces to collect information in the field, and helped put together the protocols for the simulator testing as well as being involved in the design and construction of the two race-car simulators with the school's mechanical workshop.

The project was a world first for the Elite Motorsport Academy and was so successful that it has become an annual event.

Another field project saw Barrett at Wanaka's Cardrona skifield. A master's student researching sports injuries had completed lab testing, but needed a magnetic tracking system to gather real-life data. Barrett devised a battery-powered system that could be worn by skiers so their knee and ankle joints could be measured for impact and flexion.

Modifying existing systems to make them work better is all part of the challenge. Measuring rates of sweating is difficult when an athlete is exercising, but Barrett developed a new method that is portable, durable and reliable. It has also proved to be simpler to use and cheaper to manufacture than alternative systems.

One of Barrett's earlier inventions is a multi-channel timing system – a light gate for measuring sprinters' times. He designed and built a field-testing timing system for a researcher, and since then the University has had requests for similar devices from all over the country, from sports institutions to the All Blacks. More than 50 have now been sold through a marketing company.

"I'd be quite keen to do something like that again – something that could be developed commercially," says Barrett. "It's not from a desire to make a lot of money, but the satisfaction of developing a resource that you know will keep on being useful for all sorts of people."

But with two pre-school children, finding time is hard. Life outside work revolves around the family, with occasional outings riding trail bikes.

So although time is in short supply, the $7,500 University award for exceptional performance will come in handy for the next Barrett project. He's looking to spend the money on attending the right conference to follow up a couple of ideas he's got for new inventions to make life easier for staff and students, and push the boundaries of knowledge just that little bit further.

He has no plans to look beyond the School of Physical Education. "My role is continually changing. I've had job offers, but it all comes back to job satisfaction. People may say it isn't too good to stay in one job too long, but I've really been too busy to stop and look elsewhere. I'm happy right here."

Nigel Zega

Distant education

WHILE BREAKING GROUND FOR PACIFIC ISLANDS' HEALTH CARE, THREE EARLY ALUMNI BROKE NEW GROUND FOR OTAGO AS WELL.

Photo: supplied

Ratu Dovi Madraiwiwi

ONE DAY, as a doctoral student in London, Annie Stuart was poring over the archives at the Records Office in Kew, when she came across an intriguing note. It concerned a doctor in Fiji and a government of the day that was quite unsure how to handle him.

"I knew then there was a story here, and that one day I would find out what it was all about," she recalls.

Later, a role as research fellow as part of Otago's History, Health and Hybridity Research Cluster gave Stuart the opportunity to follow the lead that had piqued her curiosity for years.

Her work included uncovering the stories of three Fijian gentlemen, whose education at the University of Otago was to raise the standards of indigenous participation in the

Photo: Bill Nichol

Dr Annie Stuart: "It was important for Fijians to assert their right to higher education and their capacity to become learned, professional citizens."

Pacific Island's medical system – having first reassured the good folk of Dunedin that they were, indeed, quite civilised. (Early correspondence with Knox College reveals the Master, Rev Dr Ernest Merrington, anxious to establish the facts around the first Fijian's table etiquette and personal hygiene.)

The London note – and Merrington's enquiries – referred to one Ratu Dovi Madraiwiwi. A bright young man, and son of Great Chief Ratu Joni Madraiwiwi, he had blazed a path to Otago to study medicine.

It was a journey that spoke of a determination among the island nation's elite to advance opportunities for indigenous people – and to make a point to the Western colonists.

"It was quite a significant issue at the time. There was an urgent need for some of the health issues of the Pacific to be better addressed, but the colonial administrators had never been able to provide enough doctors to meet those needs," explains Stuart.

Efforts had begun back in the 1880s with the training of local youths as native medical practitioners. However, they were qualified only to work in support roles. So, despite the fact there are records of "some truly exemplary doctors who worked in isolated communities with little back up", the professional infrastructure was not in place to ensure a fully functioning medical system.

A view prevailed that fully-qualified doctors needed to be brought in from the West – in spite of a severe lack of Western medical professionals willing or able to commit to the task, and the inadequate funds available to support them.

There was, however, a maverick among the ranks, Dr S M Lambert. He argued that the solution lay in upgrading the Fijian medical training programme. The advantages were obvious: indigenous practitioners could speak the language, they had strong local knowledge and they would work for a pittance.

Although he was repeatedly rebuffed by his funders, the Rockefeller Foundation, Lambert persisted and eventually secured the money to upgrade the small Suva Medical School to become the Central Medical School in 1928.

Around the same time, Fiji's Great Council of Chiefs was promoting heavily the idea of greater opportunities for higher education for their young men and women.

Ratu Joni Madraiwiwi had been ambitious for his children, having also dispatched a son (Ratu Sakuna) to Oxford to study law, and a son and daughter to Sydney to train as a teacher and nurse respectively. His vision of his son as a doctor involved sending the young Dovi to Wanganui Technical College as a teenager, from where he proceeded to Otago in 1930 to become Otago's first Fijian student and Fiji's first fully-qualified doctor.

Dovi's trail was followed by Ratu Immanuel Vosailagi who, in 1934, became Otago's first Fijian dental student and graduated as Fiji's first indigenous dentist. Also in

The men quickly made friends in time-honoured fashion – through proving themselves indispensable on the sports field.

1934, Mutyala Satynand became Otago's first Indo-Fijian student.

The men quickly made friends in time-honoured fashion – through proving themselves indispensable on the sports field. Vosailagi, in particular, excelled in cricket, swimming and rugby, earning a University Blue in the latter. Indeed, his attention to his sporting accomplishments proved vexing for his distant father, who demanded he withdraw from sport and concentrate on his studies.

It wasn't an easy demand to police and Vosailagi got around the injunction by changing his name for the sports results. His cover was blown when a report of the team's achievements appeared, featuring a photo of the players – his father was furious and threats were made to bring the young man home.

Photo: supplied

Mutyala Satynand

The stakes were high, for Fiji and for family pride.

"There was a strong point to prove by members of the Fijian community," says Stuart. "These young men were really pushed through the system by the determination of their parents and they took this responsibility very seriously. Yet, not everyone supported the idea – there were those who felt that higher education for young Fijians would 'put ideas in their heads', that they would become trouble-makers for the society."

But is was, in fact, that attitude itself which was later to cause problems. Upon graduating, Dovi took up a role as a house surgeon at Gisborne's Cook Hospital and, later, at Waikato Hospital. As pressure mounted from the Fijian government to return, he argued that the professional experience he was gaining was necessary for him to truly become a valuable doctor – adding that "he hadn't done an education and learned to think as an individual to be told what to do".

His defiance did not go down well with the authorities. They eventually managed to summon him back, but were then faced with the problem of what to do with this young man who clearly failed to appreciate his station. He was appointed to a position that ensured he would remain subordinate to, and less well paid than, his Western counterparts.

It was a reference to these events that had originally captured Stuart's imagination in London. Half a century later, the correspondence from this period was still stored as a confidential file in the Fijian archives.

For Dovi, says Stuart, "this remained a sore point and he felt terribly betrayed. He left Fiji again as soon as he could, serving as a doctor with the NZEF in the Solomon Islands and did not return to Fiji permanently until 1956."

Indeed, perhaps Otago's most famous Fijian alumnus, Ratu Sir Kamisese Mara, had his own career shaped by Dovi's determination to follow his own path and, particularly, his resistance to taking up a position in the colonial administration. Ratu Sukuna – Dovi's brother and Mara's uncle – insisted Mara withdraw from his medical studies at Otago and dispatched him instead to Oxford, to be groomed for a Fijian leadership role.

Like Dovi, Satynand was employed in New Zealand after graduating, as a house surgeon in Auckland. He was asked to stay and lead the Accident and Emergency Department following the death of his predecessor. Before long, World War Two manpower regulations were enforced, further preventing Satynand's return home. He married a Fijian-Indian nurse and the pair were naturalised in New Zealand at the end of the war, where they lived ever since. Their son, Anand Satynand, is now the Governor-General of New Zealand.

Of the three pioneers, Vosailagi alone returned to Fiji for a settled career, working for the government as a dentist and later entering private practice.

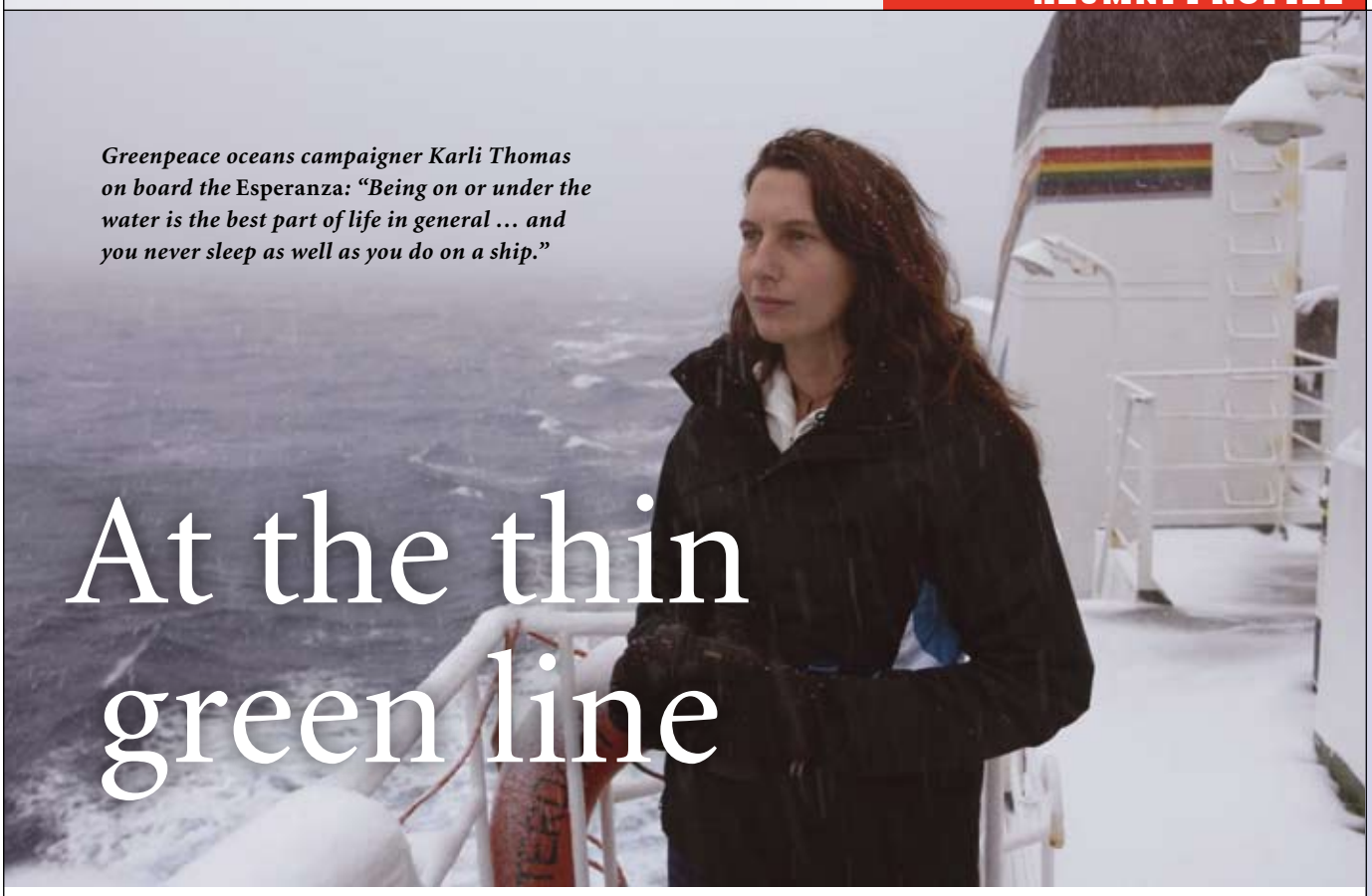
So, did sending the young Fijians to Otago achieve its goal for the Islands? "It was a necessary endeavour," says Stuart. "It became about more than the need to professionalise medical services in Fiji. It was important for Fijians to assert their right to higher education and their capacity to become learned, professional citizens."

The issues the men faced, of becoming educated beyond the opportunities readily available for them at home, continue to challenge Otago's Pacific students today – not to mention students from small towns and communities around New Zealand and beyond.

Plus, this early taste of globalisation broadened horizons in Otago as well.

"Despite his reservations," says Stuart, "Knox's Dr Merrington went on to write glowing reports about Dovi's calibre, using phrases commending him, 'not just as a student, but as a man'."

Nicola Mutch



Greenpeace oceans campaigner Karli Thomas on board the **Esperanza***: "Being on or under the water is the best part of life in general … and you never sleep as well as you do on a ship."*

Photo: Greenpeace / Daniel Beltra

At the thin green line

BOTANY GRADUATE KARLI THOMAS HAS LIVED ON A DOC BIRD SANCTUARY, TRAINED AS A DIVE MASTER IN MALAYSIA, MADE MUD BRICKS IN LAOS, WORKED FOR GREENPEACE IN THE MEDITERRANEAN AND, EARLIER THIS YEAR, SPEARHEADED THE CAMPAIGN AGAINST JAPANESE WHALING IN THE SOUTHERN OCEAN …

Since graduating from the University of Otago in 1996, Greenpeace oceans campaigner Karli Thomas has probably packed more action and adventure into the last decade than most people could expect in a lifetime.

In April, Thomas returned to her family home in Golden Bay for a brief holiday after leading a Greenpeace International expedition into Antarctic waters aboard its ice-strengthened ship *Esperanza* to protest at Japan's continuing scientific whaling programme in the Southern Ocean whale sanctuary.

In February, Japan's annual whale hunt captured world media attention when fire broke out on the whaling fleet's flagship, the *Nisshin Maru*, claiming the life of a crew member and disabling the ship for 10 days in the Ross Sea. As expedition leader and official spokeswoman for Greenpeace, the incident catapulted Karli Thomas's name into international headlines.

Esperanza responded to the *Nisshin Maru's* mayday call for assistance with the offer of a tow, which was declined. After the fire, the Japanese fleet abandoned its Antarctic whaling programme for the season and *Nisshin Maru* limped out of the Southern Ocean whale sanctuary, shadowed by *Esperanza,* and returned to Japan.

Photo: Greenpeace / Daniel Beltra

"The fire on the *Nisshin Maru* was really a tragedy," Thomas explains. "It was the second fire this ship has had in the past decade. As fellow sailors, our first thought was with the crew on board and, particularly, the man reported missing, whose body was later recovered in the area of the fire."

Greenpeace had intended to take direct action to stop the fleet killing whales, she says. In the previous season, two Greenpeace ships had tailed the fleet for 29 days and Thomas says their actions helped prevent the slaughter of 82 whales. However, the fire on the *Nisshin Maru* had raised wider concerns, she says.

The Japanese government was the only country to vote against the Southern Ocean whale sanctuary when it was established by the International Whaling Commission, but it is a signatory to the Antarctic Treaty, an international agreement designed to protect the pristine Antarctic environment.

"What happened this year certainly raises wider questions about the Japanese Government taking a fleet of ships (none of them ice class) to such a pristine yet hostile environment, refuelling their ships within the treaty area and, of course, the hunt itself," Thomas says. "They are risking not just whales, but the whole Antarctic environment, as well as putting their own crews at risk on these ships."

For a passionate environmentalist, that voyage was the pinnacle of Thomas's illustrious career in conservation to date. As expedition leader, she says it was a huge challenge carrying a lot of responsibility – albeit shared

Greenpeace vessel* Esperanza *in the Southern Ocean, on its way to offer assistance to the Japanese whaling fleet's factory ship* Nisshin Maru*, February 2007.

with the captain and the campaign team – for the ship and crew in a harsh, unforgiving environment.

Originally, Thomas came to the University of Otago to study medicine and, although she "scraped in" to medical school, she pursued a personal interest in plant ecology and botany instead. She completed an honours degree in botany in 1996 and, since then, has packed an extraordinary range of experiences into a hectic lifestyle that has taken her to some of the most remote corners of the planet.

"Studying environmental issues was definitely a good basis for what I have worked on, though moving into NGO [non-governmental organisation] work has probably had the most influence on my career," she says.

After graduating, she worked for Agriculture NZ, which gave her plenty of variety and work experience in a wide range of environmental issues dealing with the Ministry of the Environment and MAF, the Department of Conservation and numerous other organisations. From there, she joined Forest and Bird for about two years working alongside former conservation director the late Kevin Smith.

"He was really a great mentor for me in terms of lobbying and working in the NGO community on conservation issues," Thomas says. At the same time, while on holiday in Tonga, she assisted a whales', campaigner with a public education campaign and decided then to focus her career on marine conservation.

For nine months she lived on Tiritiri Matangi Island, a DOC bird sanctuary in the Hauraki Gulf. There she was a volunteer guide for school groups visiting the island and, in her spare time, was environmental co-ordinator for the New Zealand Underwater Association. She later helped this organisation develop a marine reserve proposal for the waters around the island.

Thomas then travelled widely for a couple of years, mainly in South-East Asia, where she trained as a dive master in Malaysia, made mud bricks on an organic farm in Laos, helped on a dive survey in Cambodia and organised beach clean-ups in several countries, to name just a few specific projects.

"When the travel funds ran out, I ended up in London looking for temping work, but very quickly realised that if I was working in an office doing anything other than environment and conservation work, I simply wouldn't be happy," she recalls.

She saw an advertisement for her current job with Greenpeace and moved to Amsterdam in January 2005. Ironically, her father had clipped out the same job for her from a newspaper a year earlier, but she was out of contact, trekking in Nepal and India at the time. In the last couple of years, she has worked on Greenpeace campaigns in Spain, France, Italy, Greece, Turkey, Lebanon and Israel to develop marine reserves in the Mediterranean.

In April, Thomas had just returned to New Zealand from Japan. When *Esperanza* followed the whaling fleet back to Japan, initially it looked like it would be denied entry into port, like its sister ship *Rainbow Warrior* the previous season. Despite opposition, the ship was eventually allowed to berth.

This year, Greenpeace has focused its anti-whaling campaign on giving the Japanese public more information on its government's whaling programme in the Southern Ocean.

Thomas says 92 per cent of Japanese people don't know the details of that programme and are fed propaganda portraying the anti-whaling movement as anti-Japanese and Greenpeace as a terrorist organisation.

"We wanted to show we are not against Japan or Japanese people; we simply oppose the whale-hunting their government is doing," she says. "I believe that breaking down these myths and exposing the fact that their government is killing whales, including endangered species, in an internationally-agreed whale sanctuary would give people in Japan the opportunity to make up their own minds whether that is right. I believe most people would decide that it is not right.

"Millions of people there now know more about Greenpeace and our campaign through reports on several of the main television channels, which gave a much more balanced picture of the whaling issue than in the past," she says. "It is a good sign for the future, though the campaign is certainly not over yet."

Thomas has now returned to her base in Amsterdam to prepare for another three-month voyage to promote marine reserves and expose illegal driftnet and pirate fishing for bluefin tuna in the Mediterranean.

Eventually, she may return to New Zealand, where she would like to work for the Greenpeace "family network" one day, but is really enjoying the intensity of her current job as an activist working in the front lines of the organisation.

"Being on or under the water is the best part of life in general," she says. "And you never sleep as well as you do on a ship."

Rob Tipa

Leading Thinkers achieves target

The University of Otago's Leading Thinkers initiative – the core of the University's advancement programme – has exceeded its target six months ahead of schedule. A total of $51.7 million has been raised and is being used to support 27 new projects within the University.

The five-year programme was established under the Government's Partnerships for Excellence framework to support world-class scholarship at Otago in areas vital to the nation's future well-being. Its aim was to secure $50 million (including $25 million provided as matching funds by the Government) to support 25 new projects.

A key feature of the initiative – and what has set it apart from other advancement campaigns – has been its commitment to investing in people, not buildings; knowledge leaders, not infrastructure. The rationale behind this was simple – a university is defined by its people, so any university wishing to improve its quality should add to, secure and encourage these people, especially those identified as its "leading thinkers".

This concept proved to be one that resonated well with donors. "Raising money for its own sake is not the point, but what it is used for," explains Development Director Clive Matthewson.

Of the 27 new projects established, some were generated within the University while others were initiated by donors in areas of particular interest or concern to them. All have been approved as fitting within the University's strategic direction. Most projects have endowed in perpetuity a new position, usually a chair, and each project's funds are held separately by the University of Otago Foundation Trust with the income used to support the project. Three projects use capital spending to expand the horizons of researchers and make the University of Otago (and thus New Zealand) a more attractive place to work. They support researchers across multiple disciplines, thus qualifying as long-term investments in human capital.

The projects cover a breadth of disciplines, from peace and conflict studies to reproduction and genomics; childhood issues to cancer pathology; entrepreneurship to international health. However, Matthewson says Leading Thinkers is much more than 27 disparate projects. "It makes a statement about the University. It demonstrates where we are going and that we will get there."

He pays tribute to all of those who have donated to the initiative. Their philanthropy has enabled the establishment of projects that would otherwise not exist.

"The University has a new set of partners who will continue to have an association with us and with what is happening here, especially concerning the particular project they have funded. Our donors have given money to achieve something good and we feel very strongly the need to meet their expectations."

He also attributes the success of the initiative to the standing of this University within the community. "People will only donate to an organisation that they trust highly. The success of Leading Thinkers indicates that the University of Otago is a highly trusted institution – that its mission is trusted, its financial stability is trusted, the ability to deliver is trusted and, most importantly, its leadership is trusted."

The success of Leading Thinkers bodes well for the future of the University. Matthewson explains that there was some apprehension when the advancement campaign was begun. "Overseas, philanthropy had been accepted as a key ingredient in leading universities – in making good universities into great ones. But this idea was not established in New Zealand. Now Otago has proved that advancement activity works and that it can fit in well with our culture."

The University is now well placed to plan both an extension of Leading Thinkers and also a broader approach to advancement activity in general.

A key feature of the initiative … has been its commitment to investing in people, not buildings; knowledge leaders, not infrastructure.

LEADING THINKERS PROJECTS

Edgar National Centre for Diabetes Research and Education		
Eion and Jan Edgar Charitable Trust	Professor Jim Mann 2004	The world-leading work of this centre is helping to combat the effects of global obesity and diabetes epidemics.
Ron Lister Chair in Geography and Centre for Development Studies		
Anonymous	Professor Tony Binns 2005	Honours the University's foundation Professor of Geography and the endowment enables a leading role in development studies.
Carney Centre for Pharmacogenomics		
Jim and Mary Carney Charitable Trust	Associate Professor Martin Kennedy January 2006	Understanding how genetics influence individual responses to drugs promises the possibility of better tailoring medications to each patient.
Eamon Cleary Chair in Irish Studies		
Eamon Cleary Charitable Trust	Professor Peter Kuch June 2006	Provides national leadership in the area of multidisciplinary Irish studies, from literature to economic history, music to national identity.
Chair in Early Modern Philosophy		
Anonymous	Professor Peter Anstey June 2006	Further boosts philosophy at Otago, specialising in philosophers whose thought underpins modern Western political systems.
Dunedin City Council Chair in Entrepreneurship		
Dunedin City Council	Professor Brendan Gray July 2007	Will lead understanding of success in new businesses and introduce students to the skills required.
New Zealand Institute for Cancer Research Trust Chair in Cancer Pathology		
New Zealand Institute for Cancer Research Trust	Professor Mike Eccles June 2006	Professor Eccles' work seeks understanding about cancer diagnosis and treatment through first understanding the biology of the disease.
Cure Kids Chair in Child Health Research		
Child Health Research Foundation (Cure Kids)	Professor Stephen Robertson January 2006	Explores the genetic determinants underlying childhood diseases especially in the specialist niche of congenital malformations.
Stuart Chair in Science Communication		
Stuart Residence Halls Council	Professor Lloyd Davis July 2007	New Zealand's first chair in Science Communication, building on existing science education activities.
Cure Kids Chair in Paediatric Research		
Child Health Research Foundation (Cure Kids)	Professor Brian Darlow September 2007	Enhancing research in neonatal medicine and general paediatrics, and establishing a research programme in general and ambulatory paediatrics.
Chair in Viral Pathogenesis		
Anonymous	Search under way	The new professor will seek to better understand animal viruses that could evolve to new strains and be a threat to human life.
Alexander MacMillan Chair in Childhood Issues		
Alexander MacMillan Trust	Search under way	Will further develop the Children's Issues Centre as a recognised authoritative source of multidisciplinary research.
Stuart Chair in Scottish Studies		
Stuart Residence Halls Council	Search under way	To foster research into Scottish history and culture, and understanding about the Scottish impact on New Zealand's identity and development.
University of Otago Legal Issues Centre		
GAMA Foundation	Search under way	The new centre is intended to help to reorient the legal system so that it works better for people.

McAuley Chair in International Health		
Mercy Hospital Ltd (Sisters of Mercy)	Search under way	To build on existing strengths to help fulfil the commitment to international progress, including the needs of people in the developing world.
AgResearch Chair in Reproduction and Genomics		
AgResearch Ltd	Search under way	Will lead a joint centre, strengthening the partnership between Otago and AgResearch, and adding capability in the field of reproductive science.
Howard Paterson Chair in Theology and Public Issues		
Paterson Charitable Trust, Presbyterian Synod of Otago and Southland, Ian and Annette Tulloch	Search under way	Will direct New Zealand's first research centre tackling social issues such as poverty, social welfare and the environment from a theological perspective.
TD Scott Chair in Urology		
Trevor Scott and the TD Scott No 2 Family Trust	Search to start soon	Will research and enhance teaching in a field of men's health that many consider to be a neglected area of medicine.
Chair in Peace and Conflict Studies		
Aotearoa New Zealand Peace and Conflict Studies Centre Trust		To enhance the well-being and reputation of New Zealand and the Pacific region with work that makes the peaceful resolution of issues more likely.
NZ Law Foundation Chair in Emerging Technologies		
New Zealand Law Foundation		Will research leadership on legal, regulatory and policy issues arising from emerging technologies, and will foster balanced public discussion.
McKenzie Medical and Surgical Repatriation Fellowship (triennial)		
F and J McKenzie Charitable Trust	Currently vacant	To help New Zealand attract its best physicians back to clinical, research and teaching positions following postgraduate overseas study.
Caroline Plummer Fellowship in Community Dance (annual)		
Caroline Plummer Memorial Trust	Dr Katrina Rank	Honours Caroline Plummer (1978-2003), her scholarship at the University of Otago, her passion for dance and her vision for community dance.
Gama Research Fellowship in Bipolar Disorder (triennial)		
GAMA Foundation	Virginia Maskill	Focuses on how families interact with sufferers from bipolar disorder, supporting work of Leading Thinker Professor Peter Joyce (Christchurch).
Karitane Senior Research Fellowship in Early Childhood Obesity		
KPS Society Limited	Dr Rachael Taylor May 2007	Attached to the Edgar National Centre for Diabetes Research and Education, supporting Leading Thinker Professor Jim Mann.
Community Trust of Otago Centre for Trace Element Analysis		
Community Trust of Otago	Dr Claudine Stirling August 2006	Analyses trace elements to undertake work across topics as diverse as the origins of our solar system, climate change and the metabolism of the human body.
Centre for Molecular Research in Infectious Diseases		
Dr John Thrash (USA)	Professor Kurt Krause January 2007	Using state-of-the art X-ray equipment. will advance understanding of the molecular basis of some of the world's worst human diseases.
Polaris II		
Community Trust of Otago, Mace Charitable Trust, Eion and Jan Edgar Charitable Trust, Callis Charitable Trust	May 2007	Over 20 researchers from seven departments are benefiting from the purchase of the *Polaris II* and its conversion to a research vessel.

Photo: Alan Dove

The Te Tiaki Mahinga Kai team: Angela Mckenzie, Associate Professor Henrik Moller, Katja Schweikert and Dr Pip Pehi. (Absent: Mark Haggerty).

Partners in conservation

THE UNIVERSITY of Otago has set up a cross-cultural team of researchers to work in partnership with Māori to help restore the coastal environment and enhance sustainable harvests of customary fisheries.

Te Tiaki Mahinga Kai (TMK) is a nationwide collective of researchers, environmental managers and community leaders whose common goal is to draw on both traditional methods and modern scientific research to improve the health of rivers, estuaries and coasts so they can support sustainable harvests of mahinga kai (seafood).

TMK has secured key funding for the next four years through a Foundation for Research Science and Technology grant. It also had assistance from Ngāi Tahu iwi and research support funding from the Dunedin City Council and the University's Division of Sciences.

The first step is to build relationships between the research team and community groups. In July, TMK organised a hui at Karitane involving more than 50 kaitiaki (guardians) representing iwi (tribes) from Northland to Southland.

Researchers see a real need to heal coastal areas, but recognise change has to come through the active participation of Māori in community-driven conservation projects such as mataitai, taiapure and rahui reserves. There are currently 17 new applications for mataitai in the South Island alone, so there is a growing momentum for Māori to exercise kaitiakitanga (guardianship) over their coastal environment and fisheries through these reserves.

The research team at TMK brings a wide range of skills and disciplines to the project and has strong links to a network of academic, environmental and government institutions throughout New Zealand.

Photo: Alan Dove

Dr Pauline Norris and Dr Simon Horsborough: An HRC grant is enabling them to look at equity in prescription medicine use.

Which medicines for whom?

GISBORNE'S SIZE and relative isolation make it an ideal focal point for a University of Otago Pharmacy School research project designed to get a clearer picture of prescription use in New Zealand.

Lead researcher Dr Pauline Norris says prescription medicines play a big part in improving health, but little is known about which people get which medicines – in particular, how they get distributed in terms of gender, age, socio-economic status and ethnicity.

"This means we don't have answers to questions like do Māori take more asthma medication than Pākehā, or do older people take more statins than younger people?

"We are also interested in how much they are paying for their prescriptions."

To get some answers to those questions Norris and research fellow Dr Simon Horsborough have been able to secure a year's prescribing data which they can link with patient age, gender and ethnicity, to examine patterns of prescribing.

"It may sound like a very trivial task, but it's a mammoth one," he explains. "We have 643,000 prescription records for a population of around 32,000 to analyse."

Gisborne's geographical location means it is most likely that people from the city and surrounding region would get their prescriptions filled by one of Gisborne's eight community pharmacies or at the hospital pharmacy.

The research is being supported by a three-year grant from the Health Research Council.

Norris says the research also wouldn't be possible without the exceptional support they have received from Ngati Porou Hauora.

Photo: Bill Nichol

Dr Jan Mosedale: He hopes to produce a unique insight into the political economy of Chinese coach tours.

Tourism's sleeping giant awakens

CHINA IS about to emerge as the sleeping giant of the New Zealand tourism market.

According to Ministry of Tourism forecasts, China will be one of the big players in future with estimates of a 250 per cent increase in visitor numbers between 2005 and 2012.

New Zealand now hosts two million international visitors every year and current growth is forecast to continue, spearheaded by China.

That predicted growth has attracted the attention of Dr Jan Mosedale, a lecturer in the Department of Tourism, fresh from completing his doctorate which looked at the corporate geographies of transnational tourism corporations. His previous research focused on the close links, relationships and networks built up by powerful and influential integrated tourism companies operating in the Caribbean.

Now Mosedale is keen to trace the commodity chains operating in Chinese package tours to New Zealand. Traditionally, these tours have followed an established North Island circuit, but recent research suggests a distinct shift to include South Island destinations.

The first step is to find out what is happening in that market, Mosedale says, as there has been little research in this field. He has applied for funding to research current tourist flows, power structures, business networks involved and the distribution of benefits.

Ultimately, he hopes to produce a unique insight into the political economy of Chinese coach tours, a better understanding of tourist flows and provide essential information for in-bound tourism operators, businesses, marketers and organisations.

Photo: Alan Dove

Dr Kimberly Hageman: "Our aim is to investigate how the concentrations and ratios of chemicals change along a transect from the Canterbury Plains to the West Coast."

Pursuing persistent pollutants

BEING ON the POPs charts might be considered good in music circles, but not to Chemistry's Dr Kimberly Hageman. To her, the POPs list is one of banned chemicals drawn up at the Stockholm Convention.

These are Persistent Organic Pollutants, and the original list included 12 chemicals such as DDT, dioxin and PCBs that persist in the environment, bioaccumulate in food webs, and are toxic to humans and wildlife.

Those substances are banned in New Zealand, but their persistence means they are still present in our environment – and this is the crux of Hageman's work. Chemicals such as DDT are still found in soils – for example, from old sheep dip sites – and continue to evaporate into the atmosphere. These vaporised chemicals travel in the atmosphere, but their "semi-volatile" nature causes them to condense back to the earth at cold temperatures, creating higher than expected concentrations in high mountains, Antarctica and other cold places.

"New Zealand's South Island is a great place to study the atmospheric transport of contaminants because of its unique geography," Hageman says. "The Southern Alps are surrounded by a simple contaminant source pattern – most of the regional contaminants originate on the east side and the whole system is surrounded by ocean.

"Our aim is to investigate how the concentrations and ratios of chemicals change along a transect from the Canterbury Plains to the West Coast. We will also look at possible chemical drift from Australia – how much of the chemical signature is domestic and how much is global."

Photo: Alan Dove

Dr Peter Walker and Associate Professor Pat Shannon: "We're formulating a process that is practical, of real benefit to the community."

A guide to social change

DOCUMENTING COMMUNITY initiatives is the stuff of social science research, but the Department of Social Work and Community Development's Community Action Research Team (CART) has gone further. Associate Professor Pat Shannon says community activities involving CART members are "a series of experiments developing a body of knowledge which form the beginnings of a strategic model for initiating bottom-up social change".

As a research-based "how to" guide, the emerging model appears to be a world first, according to Dr Peter Walker. "We're not working with high falutin' ideas. We're formulating a process that is practical, of real benefit to the community. It's got to work."

Imposing a "solution" on a community does not work and a partnership with government means nothing if the government holds all the power. Success depends on community ownership. Says Shannon: "You have to engage all the stakeholders at an early stage to work out common objectives."

CART's current project with CCS Disability Action will culminate in a "visioning exercise" for the organisation's service users, with considerable efforts made to engage the most high-needs clients.

CART members act as facilitators and a source of knowledge and skills, empowering community groups in negotiating the tricky territory of funding and government policy. Sympathetic local bodies also make great allies, as happened with a Timaru safer-community initiative. Local co-operation between the Dunedin Community Law Centre, Ngāi Tahu and three runaka spawned a working partnership now promoted as a model for Treaty-based law centres nationwide.

Photo: Alan Dove

Dr Shyamala Nada-Raja: New Zealand's number eight world-ranking for internet use leaves it well-placed to trial this programme.

Treatment in cyberspace

CAN THE INTERNET deliver effective depression treatment? The Injury Prevention Research Unit's Recovery via Internet from Depression (RID) study aims to find out.

Dr Shyamala Nada-Raja says the Australian-developed programme uses widely-accepted cognitive behaviour therapy (CBT) techniques which deal with people's thoughts, feelings and behaviour.

"It helps them overcome negative thought patterns and turn them around to more positive ways of dealing with life pressures."

Those on the CBT trial will work, at their own pace, through a four-week online programme of exercises and questions. They will be compared with a second group who will receive help from an online health coach and a third group who will be given information on depression.

Researchers will assess each group's depression, anxiety, self-harm, alcohol use and quality of life before and after their programme, as well as six-monthly assessments over the following two years.

"The disabling effect of depression, anxiety and panic attacks is underestimated – it's a leading cause of disability," Nada-Raja says.

She hopes to recruit up to 700 people over the four-year, $2 million study. The Health Research Council is providing 79 per cent of the funding, with the remainder from ACC.

"About half of those who are depressed don't come into any contact with mental health services," she says. However, New Zealand's number eight world-ranking for internet use leaves it well placed to trial the programme.

"Māori and non-Māori have comparable rates of internet access, plus it provides a way of delivering greater help to people in rural areas."

Photo: Bill Nichol

Diane Ruwhiu and Phil Broughton: "Good business practice is good business practice, regardless of who you are … "

Business builds bridges

MĀORI AND GENERAL business communities have more in common than differences, and both would gain from closer collaboration between the two.

That was just one finding of a wide-ranging national survey of Māori and mainstream business networks, organisations and government agencies, to find ways for them to work together for the benefit of themselves and the economy.

Māori businesses are making an increasingly significant contribution to New Zealand's economy, with annual production estimated at $1.9 billion in 2003 and an asset base conservatively estimated at $9.4 billion in 2006.

In the past, both business communities have developed pre-conceived ideas about the other and have failed to develop enduring relationships, says co-author Diane Ruwhiu, a lecturer and PhD candidate in the Department of Management. A significant number of successful Māori businesses and many smaller ones don't make use of organisations like Chambers of Commerce and Employers' Associations that are there to help them. Both groups have a strong desire to build closer relations, Ruwhiu says. Each has distinctive differences and should embrace those differences, but they also share similar goals and practices.

"Good business practice is good business practice, regardless of who you are … but we have to acknowledge, respect and work with diversity amongst both communities," she says.

The report, *Building Business Partnerships: Closer Collaboration between Māori and General Business Communities*, was commissioned by the Hui Taumata Task Force and Business New Zealand, and jointly researched and written by Ruwhiu, Polson Higgs' partner Phil Broughton and researcher Tony Wilson.

Photo: Alan Dove

Professor Rick Sibson: Earthquake activity may help oil and gas shift into the dome structures associated with compressional inversion.

Ups and downs of faults

PROFESSOR RICK SIBSON says Christchurch Cathedral is advancing towards the Haast pub at the rate of about 40 mm a year, with the crust in-between faulting, crumpling and shortening to create the Southern Alps. He ought to know – Sibson (Geology) has been researching fault zones and earthquakes for nearly four decades, lately with a particular interest in compressional inversion faults.

"These are steep faults that formed around 90 million years ago during stretching of New Zealand's crust, but they have reactivated as reverse faults during the current period of crustal shortening. Such inherited structures present peculiar problems. First, activity is difficult to assess because of their changing offset history. Second, mechanical analysis suggests their continued activity depends on the presence of highly pressurised fluids at depth."

This latter characteristic may be responsible for the association of some compressional inversion faults with gold-quartz veining, and others that host oil-gas fields, as is the case in the Taranaki Basin. These associations arise because of the ability of inversion faults to function as "valves", bleeding off over-pressured fluids immediately after earthquake rupture, when there is enhanced permeability along the fault.

This on-again-off-again fluid discharge helps to explain the mineralisation sometimes found in exhumed ancient fault zones – the mineralisation at Macraes Mine is hosted along an ancient fault structure uplifted from a depth of 10 to 15 km. Sibson also suggests that earthquake activity on inversion structures may help oil and gas shift episodically into the dome structures associated with compressional inversion.

Earthquake activity may have its uses!

Photo: Alan Dove

Professor Mark Henaghan: "The 'warrior gene' claims show how genetic information can be misinterpreted and misrepresented."

Genome issues highlighted

WIDESPREAD DEBATE over the so-called "warrior gene" has highlighted the need for a balanced regulatory and ethical approach when dealing with our ever-increasing knowledge of the human genome.

Otago's Law Faculty is leading the development of just such an approach through the Human Genome Research Project (HGRP), a three-year project funded by the New Zealand Law Foundation.

Project leader and Faculty Dean Professor Mark Henaghan says their theme, Genes, Society and the Future, recognises that rapidly developing genetics research has outpaced medical, ethical, legal and cultural debates.

"We are now faced with complex legal, regulatory and ethical questions ranging from biotechnology and patents to genetic screening, eugenics, human rights and indigenous populations," he says. "The 'warrior gene' claims – suggesting that Māori men were more likely to be aggressive or risk takers – show how genetic information can be misinterpreted and misrepresented."

Henaghan says the suggestion that the gene is present in two thirds of Māori men was based on a sample of just 17 individuals and would not stand up to robust scientific scrutiny. "As a country we need to have a clear standpoint on these issues so we can take advantage of genetic advances while still taking into account public concerns, perceptions and beliefs."

The HGRP's interdisciplinary approach works across scientific, legal, cultural, economic and philosophical boundaries to meet those goals. The project's first report last year covered pre-implantation diagnosis. Later this year, its report will include newborn, children and community genetic testing, and whole-genome-screening technology.

Photo: Ken George

Julie Gillespie-Bennett: "Endotoxins taken from the floor of a baby's room at three months were associated with wheezing, and an itchy scaly rash at 15 months."

Toxins affect infants

ENDOTOXINS, produced by the breakdown of bacteria, are found everywhere, including house dust. Now, for the first time in New Zealand, researchers at the University of Otago, Wellington have found that endotoxins in the home environment may be having a negative health effect on infants.

The study, published in the *Journal of Allergy and Clinical Immunology*, looked at a sample of 881 infants and found that children with higher levels of endotoxin in their bedroom had more wheezing and more eczema-like rashes, particularly if the child had a family history of allergic disease.

"Endotoxins taken from the floor of a baby's room at three months were associated with wheezing, and an itchy scaly rash at 15 months," says lead researcher Julie Gillespie-Bennett, from the Wellington Asthma Research Group.

"This may not all be bad news though. There's growing evidence that, while endotoxins may cause wheezing by a direct effect on the lung, they may also protect children from developing allergies in later childhood."

It remains to be seen, however, whether any of these early links between endotoxins in the home environment and respiratory and skin symptoms have any influence on the later childhood development of asthma. New Zealand has a high asthma prevalence rate by international standards.

"We have yet to measure the allergic asthma response at seven years of age with this cohort of children," says Gillespie-Bennett.

This research was funded by the Health Research Council, and the David and Cassie Anderson Bequest.

Photo: Alan Dove

Dr Miles Lamare: Increased UV radiation could reduce the long-term viability of Antarctic sea urchin larvae.

UV under ice

INCREASED UV radiation due to depletion of the ozone layer is known to have harmful effects on human beings. It seems it is also a factor for the Antarctic sea urchin *sterechinus neumayeri.*

Dr Miles Lamare (Marine Science) says the larval stages of marine invertebrates such as sea urchins are crucial to the ecosystem of the Antarctic. However, they have naturally high mortality and any increases in stress, such as increased UV-R exposure, will be significant and have the potential to reduce their long-term viability.

He explains that polar regions will experience higher UV-R in the marine ecosystem if ozone depletion continues and there is a reduction in sea-ice coverage. Research has shown that sea ice provides some filtering, but not enough to fully protect the larvae.

"UV exposure increases larvae mortality by about 30 per cent under the sea ice and up to 100 per cent in open water. Exposure to UV-R has also resulted in an up to 10-to-15 fold increase in DNA damage in Antarctic species, compared with temperate and tropical species."

He suggests this could be due to cold sea temperatures that substantially slow metabolic processes such as DNA repair – a factor that could indicate an increased UV vulnerability for Antarctic marine invertebrate larvae in general.

Now Lamare is looking at how the urchin larvae might be able to adapt. Avoidance is difficult as they feed off the phytoplankton living close to the sea surface, but the production of anti-oxidants to counter UV damage may yet provide a sea urchin sunscreen.

Photo: Ross Coombes

Associate Professor Tony Kettle and Professor Christine Winterbourn: "It's an important area of research in understanding exactly how humans fight infections."

Blood cells bleach bacteria

SCIENTISTS FROM the Free Radical Research Group (University of Otago, Christchurch) have made a major advance in the long-running scientific debate as to exactly how white blood cells destroy invading bacteria in the body.

Led by Associate Professor Tony Kettle and Professor Christine Winterbourn, they have discovered how white blood cells, the key weapon in the body's battle against infections, use common household bleach to kill bacteria.

"This issue has attracted significant and intense scientific debate over recent years," says Kettle. "It's an important area of research in understanding exactly how humans fight infections.

"But it also sheds light on how our bodies are damaged during inflammatory diseases like cystic fibrosis, where white blood cells cause lung damage through the production of bleach."

The Free Radical Research Group has now produced clear and compelling evidence through detailed chemical experiments which examined white blood cell pathways, from oxygen use to chlorine bleach. These studies show that white blood cells convert most of the oxygen they consume into bleach.

"The bleach is created within the cell compartments where bacteria are trapped and then destroyed. We've also proved that if cells lack the enzyme to make the bleach, they kill bacteria much more slowly."

Clarifying and demonstrating this process will lead to a better appreciation of how we can fight infections with the rise of superbugs such as MRSA. Paradoxically, it will also help medical science better treat some inflammatory diseases, whereby bleach from over-active white blood cells damages vital organs.

The $17.9 million development has provided a "physical heart" to the Wellington school.

Wellington development opened

THE UNIVERSITY OF OTAGO, Wellington's building development was officially opened by the Prime Minister, the Right Honourable Helen Clark, last month.

The $17.9 million project comprises a 1,200 square metre "clip-on" addition to the University's Wellington medical school, as well as the rebuilding of 2,600 square metres on the ground and first floors of the existing structure. It provides much-needed extra space for the growing school and includes three new state-of-the-art computer laboratories, a reorganised and extended library, 13 group-teaching spaces (in line with the new medical sciences teaching curriculum), refurbishment of a 230-seat lecture theatre, general meeting rooms and upgraded administration spaces. There is also a new café on site and space for students to both study and relax.

The development, designed by John Hardwick-Smith of Athfield Architects, Wellington, was completed $2 million under budget.

Vice-Chancellor Professor David Skegg says he is delighted with the result. "The University of Otago, Wellington is a long-standing part of the Newtown community, through the medical school, yet it's been somewhat hidden. This upgrade has created a more accessible reception and entry area to the medical school, which clearly identifies it within the Newtown and Wellington Hospital landscape.

"Over the past 30 years it has produced about 1,600 doctors; it is the home of New Zealand's only medical radiation therapy programme and the place where some of the country's most significant health research and postgraduate education takes place."

University of Otago, Wellington Dean Professor John Nacey says the new space has provided light, openness and a welcoming atmosphere for staff, students and visitors, while also portraying the quality and success of the school.

"We wanted a physical 'heart' for the school and that is what we now have. People enjoy the space – it's a fantastic working environment. We're part of New Zealand's top university – with top quality staff and students – and this space reflects that."

School Business Manager Philip Kane says the new facilities have been in use since the start of the academic year and the feedback is overwhelmingly positive. "The development has met its purpose – to be a positive space for students, staff and visitors."

University establishes first postgraduate college

NEW ZEALAND'S first residential college for postgraduate students will open at the University of Otago early next year.

The former Abbey Lodge hotel complex in North Dunedin has been purchased by the University and will become Abbey College, providing over 80 beds in recently-refurbished accommodation. This development is particularly timely as, for the first time in Otago's 138-year history, the University has enrolled more than 1,000 PhD students in an academic year.

University Vice-Chancellor Professor David Skegg says the development of dedicated accommodation for postgraduate students underpins Otago's strategic direction.

"As New Zealand's most research-intensive university, Otago plans to recruit an even higher proportion of postgraduate students, especially research students. Postgraduate students form part of the essential life-blood of a research-led university, such as Otago.

"This University contains many internationally-renowned research groups which can provide outstanding opportunities for postgraduate education. The establishment of Abbey College means that we can also offer graduates an unrivalled campus experience."

Abbey College is located just a few minutes' walk from all University facilities, the Dunedin Botanic Garden and the central city.

Abbey College offers postgraduate students an unrivalled campus experience.

The standard of accommodation is of a very high quality, with room types and sizes available for both single students and couples. The complex is fully-catered and many of the rooms have en-suite bathroom facilities.

There are large common rooms and a reading room, and even an indoor heated swimming pool, spa and sauna. Internet access is available throughout the college.

Māori Strategic Framework adopted

THE UNIVERSITY has adopted a Māori Strategic Framework to give a clear direction for its contribution to Māori development.

The framework follows a Treaty of Waitangi stocktake undertaken in 2005. Developed in consultation with stakeholders over the past two years, it should provide a more cohesive approach to Māori strategy across all campuses of the University up to 2012.

The six specific goals of the framework include strong accountable leadership, growth and development of Māori staff and students across the University, developing quality research that contributes to Māori development aspirations and the knowledge economy, and continuing commitment to partnerships with Ngāi Tahu and other iwi.

University Chancellor Lindsay Brown says the adoption of the framework is a further step forward in what has been an ongoing process. "It's about the University proactively seeking to contribute to Māori development in all areas of its operations."

University Māori Affairs Advisor Darryn Russell says the document – alongside Treaty partnerships – is a strong foundation for the University to contribute to things Māori.

Hunter Centre

OTAGO'S HEALTH SCIENCES students are to benefit from a new teaching facility being developed on the southern side of the campus.

The old Stewart Lodge and Campus Close properties, on the corner of Great King and Frederick Streets, will be converted into a complex to be known as the Hunter Centre.

The new complex's name recognises the major contributions of Professor John Hunter in developing the Otago Medical School and Division of Health Sciences.

The building, which will have a covered atrium, will house small-group teaching facilities, clinical teaching spaces, a cafeteria and common areas for Health Sciences students.

Pro-Vice-Chancellor (Health Sciences) Professor Don Roberton says the development is exciting.

"We envisage this space becoming a real 'hub' for Health Sciences students, who spend the majority of their time in the south campus area."

The complex will also house the Anatomy/Pathology museum.

The proposed Hunter Centre.

Researchers gain major funding

OTAGO RESEARCHERS have enjoyed significant successes in three recent major research-funding rounds.

In this year's Health Research Council (HRC) round, Otago staff gained $28.6 million for projects aimed at improving the health of New Zealanders.

The 20 contracts won include two of the three new major research HRC programmes announced. Overall, Otago researchers gained over half of the available funding.

One new HRC programme focuses on preventing injuries and reducing subsequent disability, and the other involves combating deadly viruses, such as HIV, and exploiting viruses to improve vaccines and therapies for other diseases (see feature pages 6-10).

The University's researchers were also very successful in the prestigious and extremely competitive Marsden Fund this year, gaining the largest share of the $44 million available in this year's round.

Staff from across the Divisions of Health Sciences, Humanities and Sciences gained more than $11 million to undertake 20 Marsden projects. They will investigate areas ranging from the origin of our solar system to the history of interracial marriage in New Zealand.

Otago researchers also secured around $7.4 million in Foundation for Research, Science and Technology funding to pursue two new programmes.

World-leading physicists at the University's Jack Dodd Centre for Photonics and Ultra-Cold Atoms gained $6.4 million for their four-year quantum technologies programme, while Anatomy and Structural Biology Department researchers received nearly $1 million to pursue therapies for age-related brain disorders.

New technologies scrutinised

OTAGO IS set to lead research into the ethical and legal ramifications of new technologies thanks to the establishment of a new professorial chair.

The New Zealand Law Foundation Chair in Emerging Technologies is part of the University's Leading Thinkers initiative (see feature pages 29–31) and will be based in the Faculty of Law.

In a first for New Zealand, the new chair will guide projects tackling legal issues, regulations and policies that face upheaval because of fast-paced developments in technology.

The appointee to the chair will lead an associated Centre for Law and Policy in Emerging Technologies, which will draw on national and international multidisciplinary expertise.

The centre will guide research that looks into the future and scans the horizon for emerging technologies that are likely to create significant changes and raise potential anxiety in society.

Research will broaden from biotechnology to other emerging technologies including nanotechnology, alternative bio-energy, information and communications technologies, robotics and artificial intelligence.

The New Zealand Law Foundation's endowment builds on the successful Human Genome Research Project being carried out at Otago, which is also sponsored by the foundation.

Dental agreement signed

THE FUTURE of an initiative where Otago dental students travel to Rotorua each year to provide free care for members

of the local Māori community is now secure.

The University and Tipu Ora Charitable Trust, a Māori health provider in the Te Arawa district, recently signed a memorandum of agreement in Rotorua regarding the programme.

Under the agreement, the two parties will also explore opportunities for further collaboration, including possible further student placements with the trust and a study award scheme for Te Arawa students.

Since 2000, groups of final-year dental students have forgone a week of their semester break and paid their own airfares to provide dental treatment for low-income Te Arawa adults.

University Pro-Vice-Chancellor (Health Sciences) Professor Don Roberton says the signing of the agreement reflected the University's emphasis on research and clinical teaching aimed at improving health outcomes for Māori.

Brain centre launch

A NEW Brain Health and Repair Research Centre has been launched at the University.

The centre aims to facilitate the research efforts of New Zealand neuroscience groups interested in brain function and neurological disorders.

Centre director Professor Cliff Abraham says the initiative was seen as a way of fostering research and providing a conduit for interaction with other neurological researchers around the country.

Abraham says Otago has very strong neuroscience research teams, from looking at basic brain functions, right through to clinical research projects.

New Zealand's first Irish Film Festival

THE UNIVERSITY of Otago is bringing New Zealand's first Irish Film Festival to cinema venues in both Dunedin and Auckland this month. Entitled "Enjoying Varieties of Irishness", the festival comprises eight full-length, recently-produced features exploring the rich texture of contemporary Ireland, none of which have been shown on the big screen in New Zealand before.

The festival begins with a "red carpet night" at Dunedin's Rialto cinema on 14 October, with the films being screened over the next four days (15 – 18 October), followed by another "red carpet night" at Auckland's Newmarket Rialto on 23 October with the festival again running for four days (24 – 27 October).

University of Otago Eamon Cleary Professor of Irish Studies Peter Kuch says both "variety" and "Irishness" are key themes of the festival. Before his appointment to Otago, Kuch directed Irish film festivals in Sydney and Melbourne for several years.

Thanks to the Celtic Tiger, Ireland today is quite different from the Ireland of a decade ago, and vastly different from the Ireland of a quarter of a century ago, says Kuch. "And while writers like Wilde, Shaw, Yeats, Synge, Joyce, Beckett and O'Casey were influential in shaping twentieth-century Ireland, it is the filmmakers, in company with the poets, dramatists and novelists, who are responding to the challenge to reflect and critique twenty-first century Ireland."

Two of the films, *MickyBo & Me* (2005) and *The Mighty Celt* (2005), look at Northern Ireland: the first using two 10-year-old boys' re-enactment of *Butch Cassidy and the Sundance Kid* to critique the violence of 1970s Belfast; the second looking at Belfast as it has been transformed by the peace process. A third, *Song for a Raggy Boy* (2003) shows how discipline can seek violence, and how puritanical self-righteousness can find expression in cruelty and cowardice.

Four of the films explore contemporary Dublin. *Spin the Bottle* (2003) is a light-hearted comedy about opportunism, celebrity television and the local music scene. *Adam and Paul* (2004), which won the Audience Award when it was premiered at the Galway Film Festival, is a black comedy about the circumscribed world of the drug addict. *Goldfish Memory* (2003) is a gentle "rom-com" satire on the middle-class topping up their privileged lives with the right partner. *Inside I'm Dancing* (2004) is a moving dramatisation of the search for self-fulfilment by the severely disabled.

The eighth film, *Short Order* (2005), is an art-house all-singing, all-dancing spectacular, with a cast that includes John Hurt and Maggie Smith.

MickyBo & Me.

Booking information, ticket prices, screen times and ratings for the inaugural University of Otago Irish Film Festival can found at *www.rialto.co.nz*

Appointments

Professor **Donald Evans** (Bioethics) was elected Vice-President and Rapporteur of the International Bioethics Committee of UNESCO.

Professor **Lloyd Davis** (Zoology) to the University's Stuart Chair in Science Communication.

Professor **Brendan Gray** (Marketing) to the University's DCC Chair in Entrepreneurship.

Obituaries

Professor **John (Sandy) Smith** (69). An internationally-recognised researcher and highly respected teacher, Professor Smith played a major leadership role in the development of microbiology as a scientific discipline in New Zealand. He joined the Microbiology Department in 1967 and served as Head from 1996 – 2004.

Sir **Thomas Davis** (MB ChB 1945, HonLLD 2005) (90). Former Cook Islands Prime Minister and High Commissioner to New Zealand. Sir Thomas was the first Cook Islander to qualify as a doctor in New Zealand and was noted for a lifetime of outstanding achievements spanning the spheres of medicine, science and politics.

Dr **E K (Keith) Macleod** (MB ChB 1942) (87). A neurologist and senior lecturer in the Department of Medicine, Dunedin 1951 – 1983.

Achievements

Professor **Keith Hunter** (Chemistry) was awarded the University's highest research honour, the Distinguished Research Medal, for his internationally-recognised work in the field of marine chemistry.

Donna Buckingham (Law), Associate Professor **Katharine Dickinson** (Botany) and Dr **Pat Langhorne** (Physics) won the University's 2007 Excellence in Teaching Awards. Ms Buckingham and Associate Professor Dickinson also gained National Tertiary Teaching Excellence Awards this year.

Professor **Carolyn Burns** (Zoology) is the first New Zealander to receive the International Society of Limnology's Naumann-Thienemann Medal for her outstanding scientific contributions to limnology (the study of lakes) and lake conservation.

Dr **Peter Dearden** (Biochemistry) received the QMB Invitrogen Life Science Award for his research into how body shapes of insects and animals have developed and evolved through genetic adaptation.

Professor **Colin Townsend** (Zoology) received the British Ecological Society's Exceptional Life Time Achievement Award for co-authoring the cornerstone text in the field, *Ecology: from Individuals to Ecosystems.*

The following Otago researchers received the University's Early Career Awards for Distinction in Research: Dr **Phil Ainslie** (Physiology), Dr **Warwick Bowen** (Physics), Dr **Anna Carr** (Tourism), Dr **Anne-Louise Heath** (Human Nutrition) and Dr **Rebecca Roberts** (Pathology, Christchurch).

Associate Professor **Kevin Gould** (Botany) was awarded the NZ Society of Plant Biotechnology's Roger Slack Award in Plant Biology for his work on anthocyanin function.

Professor **Ailsa Goulding** (Medical and Surgical Sciences) received the International Conference on Children's Bone Health's Charles W Slemenda Award for lifetime contribution to paediatric bone research.

Three Otago researchers won prizes in the 2007 MacDiarmid Young Scientists of the Year Awards. PhD students **Natalie Harfoot** (Physiology) and **Gabrielle David** (Chemistry) were winner and runner-up respectively in the Science and our Society category, while Wellington-based postdoctoral researcher **Shieak Tzeng** was placed first equal in the Advancing Human Health and Wellbeing category.

Medical Law in New Zealand, a book co-edited by Professor **Peter Skegg** (Law), won the Legal Research Foundation's 2007 J F Northey Memorial Book Award. Otago colleagues Professor **John Dawson** and Professor **Nicola Peart** contributed chapters.

Dr **Mike Boyes** (Physical Education) won the SPARC Supreme Award for Contribution to Outdoor Recreation.

Queen's Birthday Honours

Current and retired staff to receive honours: Associate Professor **David Gerrard** (Dunedin School of Medicine) was made a Companion of the New Zealand Order of Merit for services to sports medicine, while Dr **Rosemary Beresford** (Pharmacy) and Emeritus Professor **Martin Ferguson** (Dentistry) were made Officers of the New Zealand Order of Merit for services to medicine and to dentistry and palliative care, respectively.

Alumni honoured include: Companion of the New Zealand Order of Merit – Professor **Gregor Coster** (MB ChB 1975); Officers of the New Zealand Order of Merit – Dr **Rob Davidson** (MB ChB 1954), Dr **Anne Goldson** (BSc 1975), Dr **Colin Hooker** (MB ChB 1954); Members of the New Zealand Order of Merit – Dr **Simon Rae** (BA 1963, MA 1964, BD 1992), **Fergus Sutherland** (BA 1966, MA 1971, DipGrad 1993).

* **Jenny Gray** (BSc 1976) was awarded an OBE for services to child protection in the UK Queen's Birthday Honours.

Scholarships/Fellowships

Seven PhD students were awarded prestigious Top Achiever Doctoral Scholarships in August. The three-year

scholarships recognise and reward excellent postgraduate New Zealand students. They are **Anna Konings** (Biochemistry), **Bronwyn Polaschek** (Film, Media and Communication Studies), **Jennifer Germano** (Zoology), **Mary Powell** (Children's Issues Centre), **Katherine Douglas** (Psychological Medicine, Christchurch) **Kelly McKelvey** (Physiology), **Ekaterina Volkova** (Pathology, Christchurch).

Dr **Kelly Hare** (Zoology) has received a three-year Foundation for Research, Science and Technology Postdoctoral Fellowship to undertake study into skink reproductive biology and diet.

Several Alumni received Fulbright awards to study in the United States. **Phillip Hall** (BCom (Hons), BSc (Hons) 2005) received a Fulbright-Ministry of Research, Science and Technology Graduate Award to complete a PhD at the University of Arizona. **Brian Walters** (BAppSci 2007) gained the same award to complete his MSc at Florida State University. Dr **Sarah Hill** (MB ChB 1996, MPH 2004) gained a Fulbright New Zealand General Graduate Award to complete a PhD at Harvard University. **Saeeda Verrall** (BA, LLB (Hons) 2004) also gained a General Graduate Award to study at Harvard. She plans to complete a Master of Laws degree.

CORRESPONDENCE

HERCEPTIN – AT WHAT VALUE?

Associate Professor David Perez wrote in the last issue of the *University of Otago Magazine* (June 2007) about PHARMAC's decision to fund a nine-week regimen of *trastuzumab* (Herceptin) for HER2 positive early breast cancer. That decision has allowed New Zealand women to have the benefits of an expensive drug in a cost-effective way.

There is still uncertainty about the best dosing and duration of *trastuzumab* treatment. The issues were debated by PHARMAC's independent clinical advisory committees (PTAC and its cancer treatments subcommittee), who agreed that these questions needed to be answered. That is why PHARMAC has agreed to fund the New Zealand arm of an international trial (the SOLD study), which will compare a nine-week with a 12-month regimen. While that trial is underway, New Zealand women will have access to the nine-week regimen.

PHARMAC's role is to secure the best health outcomes reasonably achievable from medicines within available funding. Clinical and funding imperatives are inseparable to PHARMAC's decision making. With *trastuzumab*, PTAC and PHARMAC have used their usual critical appraisal approaches to assess the evidence, and PTAC considered the results of the nine-week FinHer trial were of sufficient quality to justify a funding decision.

Ultimately PHARMAC had to look at two different treatment options. The nine-week option was backed by a small, but good quality study, and had the longest-term data. The 12-month option was backed by a series of larger studies which were similar in some aspects, but quite different in others. Both types of treatment showed statistically significant results. Size is an important factor in any scientific research, but so is good quality design of clinical trials. (More information on this can be found at *www.pharmac.govt.nz/herceptin.asp*)

PHARMAC chose to recommend the shorter treatment option and, at the same time fund the SOLD trial, to answer which is the better way to go. District Health Boards and PHARMAC remain open to funding longer-duration regimens, but, for now, we anticipate New Zealand women getting good benefits, cost-effectively, from the nine-week treatment.

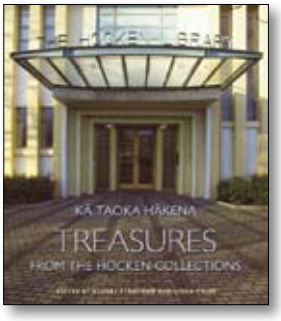
Dr Peter Moodie, PHARMAC Medical Director;
Professor Carl Burgess, Department of Medicine, University of Otago, Wellington; PTAC chair (Pharmacology and Therapeutics Advisory Committee).

THE TICK

The recent article printed in the *University of Otago Magazine* (June 2007) titled "Tick misses the mark" was a review of research into the Tick by Dr Louise Signal which stated that the Pick the Tick programme is failing to meet the need of those who need it most, namely Māori, Pacific and low-income New Zealanders.

As an evidence-based organisation, the Heart Foundation funded this research to evaluate the effectiveness of the Tick within low-income communities in order to focus resources to achieve a positive public health outcome. The finding and recommendations from this research have been used to develop a communications programme to improve the relevancy and use of the Tick within Pacific and Māori communities. The Heart Foundation is also working collaboratively with food manufacturers on several projects to provide healthier choices for low-cost foods. We have had considerable recent success in this area including measurable salt reductions in low-cost breads.

Tony Duncan, Executive Director, The National Heart Foundation of New Zealand.



Kā Taoka Hākena: Treasures from the Hocken Collections

Stuart Strachan and Linda Tyler, October 2007

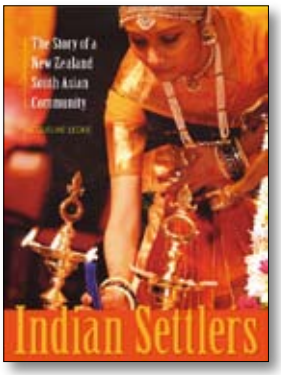
IN 1907 Dr T M Hocken, of Dunedin – historian, bibliographer and collector – undertook to gift to the University of Otago his magnificent collection of books, manuscripts, paintings and other historical documents relating to New Zealand and the Pacific.

Published to celebrate the centenary of the Hocken Collections' Deed of Trust, this book documents almost 200 items, dating from the seventeenth century to the present day, photographed by Bill Nichol. These include historical and modern paintings, photographs and drawings, maps and plans, books, newspapers and posters, sheet music, sound recordings and early New Zealand manuscripts. Many items relate to Māori history.

Including introductory essays on Dr Hocken and the development of the collections, the book stands as a tribute to the generosity of the Hocken's many benefactors.

Stuart Strachan, who trained as an archivist, has been Hocken Librarian since 1985, having first worked at the library from 1968 to 1977. He is currently an inaugural member of the Archives Council of New Zealand.

Educated as an art historian, Linda Tyler was curator of the Pictorial Collections at the Hocken Library from 1998 to 2006. She is now Director of the Centre for New Zealand Art Research and Discovery, University of Auckland.



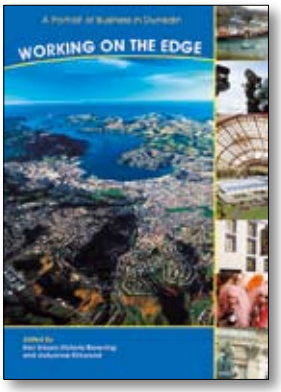
Indian Settlers

The Story of a New Zealand South Asian Community

Jacqueline Leckie, October 2007

INDIANS HAVE been present in New Zealand for more than 100 years and today people of Indian descent are a significant sector of New Zealand's total population. This is the first book to tell the story of their settlement in this country. It outlines their history, including many stories of individuals and families, and also looks at their settlement in the context of the wider Indian diaspora and the Nationalist movement in India.

Jacqueline Leckie is programme co-ordinator, Social Anthropology, at the University of Otago.



Working on the Edge

A Portrait of Business in Dunedin

Kerr Inkson, Victoria Browning, Jodyanne Kirkwood (editors), November 2007

THE TWO-DRAWER dishwasher, a revolution in the graphic modelling of yacht races and other sports events on television, collectable dolls that are sought after worldwide, specialised engineering products – Dunedin has a long list of international business success stories.

As one of the most southern cities in the world, Dunedin offers an exciting place to live, but a challenging location for business success. This is the first book to look in detail at how such businesses succeed on what might be seen as the periphery.

Written and edited almost entirely by staff at the Department of Management, School of Business, University of Otago, its case studies will be illuminating for anyone operating on the periphery anywhere.

A Southern Architecture: The Work of Ted McCoy

Ted McCoy; introduction by Douglas Lloyd-Jenkins, November 2007

TED McCOY is to Dunedin and Otago's architecture as Miles Warren is to Christchurch's and Ian Athfield is to Wellington's. People associated with the University of Otago will be familiar with many of his buildings, including University College and the Richardson (formerly Hocken) building. This book celebrates 50 years of Ted McCoy's architecture in the south, closing with the fine renovation of the Otago Museum's entrance and atrium in 1999.

Recent Otago University Press titles

Vastly Ingenious: The Archaeology of Pacific Material Culture, edited by Atholl Anderson, Kaye Green and Foss Leach, September 2007.

The Gorse Blooms Pale: Dan Davin's Southland Stories, edited by Janet Wilson, September 2007.

Made for Weather: Poems by Kay McKenzie Cooke, July 2007.

Detours – a journey through small-town New Zealand (a generation on), by Neville Peat, June 2007.

Pickerill: Pioneer in Plastic Surgery, Dental Education and Dental Research, by Harvey Brown, June 2007.

Castles of Gold: A History of New Zealand's West Coast Irish, by Lyndon Fraser, May 2007.

For further information
email *university.press@otago.ac.nz*
or visit *www.otago.ac.nz/press*

Recently published books of Otago alumni

Marine Ecology, edited by Sean D Connell and Bronwyn M Gillanders, Oxford University Press (Melbourne Australia), 2007.

Geography for the Lost, by Kapka Kassabova, Bloodaxe (UK) and Auckland University Press, 2007.

Evolving Connectionist Systems: The Knowledge Engineering Approach, by Nikola Kasabov, Springer (London), 2007.

Computational Neurogenetic Modelling, by Lubica Benuskova and Nikola Kasabov, Springer (New York), 2007.

The Search: Poems & Stories, by Mark Pirie, Earl of Seacliff Art Workshop, 2007.

The Negative L2 Climate: Understanding Attrition Among Second Language Students, by Alastair McLauchlan, Sasakawa (Palmerston North), 2007.

Wild Latitudes, by Barbara Else, Vintage NZ, 2007.

Dare and Double Dare: 30 NZ Sport Stories, edited by Barbara Else, Random House NZ, 2007.

The Englishman, the Moor and the Holy City: The True Adventures of an Elizabethan Traveller, by Joan Far, Stroud: Tempus, 2006.

Conversations with Mr Prain, by Joan Far, Melville House Publishing (New Jersey) 2006; Hardie Grant Publishing (Melbourne), 2006.

From Innocents to Agents: Children and Children's Rights in New Zealand, by Michael Reid, Maxim Institute (Auckland), 2006.

Memories of Tirau, by Patricia (Peg) Cummins, Tirau Historical Society, 2006.

Macquarie Dictionary of English for the Fiji Islands, by Paul Geraghty, France Mugler and Jan Tent, Macquarie Library (Sydney), 2006.

The Price of Freedom, by Douglas Coop, Trafford (Canada), 2006.

Sounds of Sonnets, by Mark Pirie and Michael O'Leary, HeadworX, 2006.

Alumni: If you have written a book lately email the editor at *mag.editor@otago.ac.nz*

News from the Head

After nearly six months as Head of the Alumni and Development Office I am starting to gain an appreciation of what the University of Otago means to those who have studied here, and whose personal and professional lives have been shaped to some degree by the Otago experience. It is one of the great pleasures of my job to have the opportunity to hear about the achievements of Otago alumni, and the richness and variety of the paths that graduates have chosen to follow. It is even better when these stories are recounted in person, at the various alumni functions I have attended this year in New Zealand and overseas. The wonderful atmosphere at these functions is a testimony to the bonds that alumni share, and I feel privileged to be a part of this community.

If you haven't attended one of these functions before, I warmly invite you to do so when we turn up somewhere near you. You can check the events schedule for the rest of the year here or on the Alumni webpage at *www.otago.ac.nz/alumni*

The 2008 schedule is being planned and should be available by the end of the year. Reports and photographs from functions already held are also on the web, which we are currently revamping to make more accessible and user friendly.

The website also offers a guide to the services that the Alumni and Development Office can provide. We can help you connect with old friends and classmates through our "Contact Otago Alumni" service. We can offer assistance if you are planning a get-together of Otago associates, from helping you to locate classmates, organise publicity and do postouts. Finally, if you are calling into Dunedin at any time, please come and visit us for a coffee at Alumni House, 103 St David Street. It's always a delight to have a chance to catch up with people when they are in town.

Alison Finigan

Alumni events 2007

Apia: Thursday 25 October
Auckland: Thursday 1 November
Wellington: Friday 16 November, Saturday 17 November
Queenstown: Thursday 22 November
RSVP online at *www.otago.ac.nz/alumni* or by calling 64 3 479 5649

Reunions

1957 MB ChB: To be held in Dunedin November 2007. Contact Dr David Holdaway, urgently at *david.shirleyh@xtra.co.nz*

1958 MB ChB: To be held in Dunedin, October 2008. Contact Dr Martin Pollock phone 03 479 5771 or email *martin.pollock@stonebow.otago.ac.nz*

Phys Ed's 60th reunion: The School of Physical Education will celebrate 60 years of excellence in 2008 with a series of reunion functions. Celebrations will begin in Wellington in March to honour the "Guinea Pigs" (1948ers). A Dunedin function on Friday 2 May will be hosted in conjunction with Wall of Fame inductions and the inaugural Smithells Scholarship presentation. Other events are planned for Auckland (July/August) and Christchurch (September/October). Those interested in holding reunion functions are encouraged to make early contact with reunion organisers. A calendar of events and confirmed dates will follow. For further information, please email *pe60reunion@otago.ac.nz* or telephone Phil Handcock at 03 479 8991.

Graduates' Association

The Annual General Meeting of the University of Otago Graduates' Association will be held in the Gallery Restaurant, ground floor, University Staff Club, Dunedin, on Monday 15 October 2007. For further information contact the secretary-treasurer, Gregor Macaulay, at 03 479 8392 or *gregor.macaulay@stonebow.otago.ac.nz*

Annual Appeal

The 2006-2007 appeal was our most successful to date. Thank you to all alumni and friends who contributed. The University of Otago Annual Appeal enables alumni to maintain an active connection and contribution to the University community. It supports three key areas – scholarships, research and library resources. Every dollar donated helps the University to better meet the challenges of the 21st century, creating better opportunities for staff and students alike. And, of equal significance, you can decide into which of the three areas your contribution should be directed.

To find out more, or to make a gift, please visit our website *www.otago.ac.nz/alumni/annualappeal.html* or call the Alumni Office at 64 3 479 5246.

Appeal scholarship

Alumni and friends of the University have gifted funds to provide scholarships for those with a connection to the University of Otago.

The scholarship covers tuition and sundry fees for the first year of study.

Applications close 1 December 2007. For more details and an application form see our website *www.otago.ac.nz/study/scholarships/undergraduate_scholarships.html*

Sydney




Brisbane




Kuala Lumpur




Palmerston North




Singapore




Invercargill




Outstanding Alumni Medal

INVESTMENT BANKER Trevor Moyle was recently awarded a University of Otago Medal for Outstanding Alumni Service. The medal is awarded to recognise service given voluntarily by graduates and alumni over an extended period of time.

It is just the third time the medal has been awarded since it was first struck in 2003 when the recipient was John Zinzan (BDS, 1969). The following year, it was awarded to Wong Cham Mew (BCom, 1969) in Kuala Lumpur.

Moyle, who was born in Tapanui in 1949, has expertise in corporate finance, corporate governance, capital management, equity capital markets, business planning and strategy development. He graduated from this University with a BCom (Accounting) in 1972. He is a former director of investment bank Ralton Group Ltd, a non-executive director and chairman of property funds' management company Ceramic Funds Management Ltd and an executive director of a privately-owned corporate advisory business, Teralbay Pty Limited.

Moyle has helped Otago develop and maintain links with alumni and friends of the University as chairman of the University of Otago Alumni Melbourne Chapter, which was launched in 2002. He has been the driving force behind setting up the chapter and assisting the office to host events in Melbourne.

When the medal was first struck, the University Council resolved that the awards should be restricted in number and given only where there was clear evidence of outstanding service.

Class of 1979 Medical School scholarship

IN 2004, the Medical School's class of 1979 held a reunion in Wellington and, at this time, discussed and agreed to establish a Class of 1979 Undergraduate Medical Scholarship. It is anticipated the scholarship will be awarded annually from 2009 to a second- or third-year (pre-clinical) medical student. Financial difficulties, personality and contribution to the class will be the primary criteria by which recipients will be selected. More than $30,000 has been raised to date. To learn more or to make a gift contact *alumni@otago.ac.nz* or call the Alumni and Development Office at 64 3 479 5246.

Alumni News

William Sugrue (MB ChB, 1969) was awarded the Colin McRae Medal at the annual Scientific Congress of the Royal Australasian College of Surgeons held in Christchurch. The medal honours those who have contributed to the art and science of surgery and surgical leadership in New Zealand. He has contributed to surgery in New Zealand with his clinical expertise, teaching, community service and administration. Sugrue has worked as a general and thoracic

surgeon at Whangarei Hospital for almost 30 years and has played a significant role in the training of others.

Louise Croot (DipTchg Dunedin College of Education 1961, BA Otago 1962, DipGrad Otago 1998) has been elected as the president of the International Federation of University Women, an international body with members in more than 80 countries. Croot is the second New Zealand woman to become president of the federation, which was founded in 1919. She has previously been a vice-president of the organisation for three terms. The federation promotes educational opportunities for girls and women, and is an advocate for the advancement of the status of women internationally.

Alastair Wilson (BSc 1972, MB ChB 1976, Dip. Indust. Health 2003) has taken up the position as ACC corporate medical advisor in Wellington.

Alumni who were recognised in the Queen's Birthday Honours are listed in UniClippings page 42.

Tell us your story: If you'd like to share what's been happening in your life since you left University, we'd like to hear it. Send an email to *alumni@otago.ac.nz* with the word "magazine" in the subject line. Tell us who you are, what degree(s) you have, the year you left the University and what you've been doing since then.

Perth alumni group breakfast

AT 7.30AM on a wintry Perth morning in August, a group of Otago alumni met for a breakfast get-together to launch the alumni group in Perth. The group will meet again at Matilda Bay for a midday picnic on Sunday 14 October and a further gathering in early December for a pre-Christmas drink. If you would like to attend future gatherings organised by the Perth group please ensure we have your up-to-date contact details by going to *www.otago.ac.nz/alumni/changedetails.html*

For further information please contact the local group co-ordinator Helen Skellet at *perth.alumni@otago.ac.nz* or Alix Cassidy from the Alumni and Development Office at *alix.cassidy@otago.ac.nz* or 64 3 479 5649.

College News

Changes at Carrington and University College

Ashley Day, master of University College from 1997 to 2007, has recently taken up the position of warden of Carrington College, following the retirement of David King, who held the position from 1992 to 2007. The newly-appointed master of University College, Chris Addington, currently principal of Cromwell College, will take up his position at the beginning of November.

Knox alumni gatherings in the UK

During recent sabbatical leave the Master of Knox College, Bruce Aitken, attended gatherings of former Knox residents living in the UK. The first was held on June 4 at Corpus Christi College, Cambridge, and the second at the Market Porter Hotel in London. Further gatherings of former residents are being planned and old collegians will be notified of these via the *Knoxonian* and the college website.

The *Knoxonian* is an annual free magazine for former residents and friends of Knox College, allowing them to stay in touch with what is happening at the college. It also includes a dedicated section keeping former residents in touch with what their contemporaries are up to. Back issues of this and a new DVD, *Pure Knox,* can be obtained from the college's Ab Epistulis, John Milnes *john.milnes@knoxcollege.ac.nz. Pure Knox* ($5 plus postage and packaging) portrays a year and all the regular events of the Knox calendar.

Hayward College hosted its annual "old boys" rugby match on 30 September at Logan Park and alumni attended for an afternoon of friendly competition with the current rugby boys. A mixed soccer match followed, as well as a sausage sizzle. Fans and friends are all welcome for next year's event.

KEEP IN TOUCH

www.otago.ac.nz/alumni

Updates about what's on for alumni

Your link to an online change-of-address form

Information on how to contact other alumni and reconnect with old friends

Links to virtual postcards and desktop wallpaper

The single-sex flat?

TODAY'S LANDLORDS – including the University – encourage students into mixed flats because they seem to dilute testosterone and reduce damage.

How times change.

Forty years ago the University banned mixed flatting on moral grounds – and was rocked by unprecedented student protest.

When a male student was found sharing a Union Street flat with three females, he was ordered to move out in no uncertain terms. Vice-Chancellor Robin Williams thundered "the existence of this type of living … brings the university into discredit".

In the 1950s, female students were seated at the front of lecture theatres and were dismissed before the men so they would not be harassed by unwanted male attention. This paternalistic approach was in an era when women were often considered to be only filling in time with study until they married.

But things were changing, apparently for the worse. In 1955, a Government report on "moral delinquency in children and young people" blamed immorality among the youth of the day on high wages, working mothers and the influence of America.

By the 1960s, America was certainly influencing students everywhere. This was the decade of hippies, flower power, free love, Vietnam – and student protest. Youth rebellion was fashionable in the US and Europe, and New Zealand had some catching up to do.

Otago's students were wannabe rebels looking for a cause and a clash with University authorities was waiting to happen.

In 1964, the University had introduced laws that meant students could fail end-of-year examinations if they misbehaved at student functions or in their lodgings. After all, a certain level of behaviour was only to be expected of those who would one day be leaders of the country. Two years later, another regulation was introduced to the effect that no student could live in any residence, except their parents' house, of which the University did not approve.

In 1967 sharing a flat with members of the opposite sex was regarded as scandalous behaviour that should be stopped, at the very least because of the University's responsibilities *in loco parentis*. But making an example of this particular Union Street flat was probably a mistake.

The unsuspecting male was not in a relationship with any of the females and both the landlord and the parents of all the students had given permission for the mixed arrangement.

Furthermore, student accommodation was hard to find. In 1964 there were three applications for each of 700 hostel beds – a number that had remained static as the student population had doubled between 1956 and 1967.

Flatting was the only answer, although most were same-sex arrangements. Few couples lived together openly. Those who did were regarded with awe or horror, depending on opinion. Mixed flatting prompted much the same response, regardless of whether there was any sexual activity. The opportunity was there – and that was just as revolutionary.

Many mixed-flat students lied about their accommodation to avoid attention from University authorities. This wasn't such a problem for students sharing mixed accommodation with working flatmates.

But, on this occasion, not only had the University picked the wrong flat, it had misjudged the times. The student body united with outraged protest – not on moral grounds, but on the issue of students having the right to make their own living arrangements as they would do in the community at large. Around 1,000 students – about a quarter of the roll – occupied the Union building for a protest sleep-in, although only around 180 stayed the whole night. The then Burns Fellow, James K Baxter, penned a relevant piece, *A Small Ode on Mixed Flatting* – although, because of its rather ribald nature, it probably did the cause more harm than good.

While legal opinions and editorials batted the conflict about, the offending male student quietly moved out of the flat and end-of-year exams took the momentum out of the protest. But valuable lessons had been learned. The University never again enforced its rights *in loco parentis* – although they were not revoked until 1994 – and the students had discovered the strength of mass unity. The generation gap had been defined.

Today there are some 20,000 students, with about 3,100 residential college beds, some 1,300 flats listed with the University's accommodation office, and many more with private landlords and real-estate firms.

According to accommodation advisor Shona Christie, most flats are mixed, and that's just how landlords like it.

"Landlords don't like all guys in a flat. Girls soften things, and boys tend to keep them under control too. People look after each other and look after the flat better. It gives a better balance.

"Single-sex flats are mainly because a group of friends want to hang out together, or for ethnic issues. Muslim women are not allowed to share with men."

Tony Buchanan agrees. He manages the University flats, largely providing shorter-term accommodation for international students. "Out of our 437 tenants only 15 are in single-sex accommodation in three flats. We discourage all-male flats. The testosterone tends to kick in and that can sometimes result in damage. The balance that girls bring is good from a maintenance point of view.

"The moral angle is not really relevant these days and, if it becomes relevant in the flat, then the occupants soon sort it out for themselves. We tend to find that most flatting situations are really rather conservative from a moral standpoint. Our preference is for mixed flats."

So what happened to the single-sex flat? With a few exceptions, it went the way of flower power and girls studying for something to do before they snared themselves a husband.

Nigel Zega

The writer acknowledges reference material from Debby Foster, "No mixing by students", in *Tower Turmoil: Characters and Controversies at the University of Otago* (Department of History, 2005).

Most flats are now mixed … and that's how landlords like it.