

Ingenio

MAGAZINE OF THE UNIVERSITY OF AUCKLAND

ET LABORE

SPRING 2003

RISING STAR

STUDENT WRITES LIKE A VETERAN

- > THE SCIENCE OF WINE
- > THINKING ABOUT PHILOSOPHY
- > FISHING FOR A CANCER CURE
- > TEACHING THE TEACHERS



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

Celebrate THINKING

UNIVERSITIES are sometimes accused of being out of touch with the “real” world. The accusation is typically levelled by people who have never set foot on a campus or spoken to a university student, teacher or researcher. But the stories in the following pages paint a different picture.

Biologists searching for a cancer cure in the genes of a tiny fish; researchers who are making it easier for teachers to step up to the role of principals; an institute dedicated to promoting and teaching the skills of leadership; scientists making New Zealand’s already excellent wines better; all these pieces showcase an institution vitally connected to the world beyond the campus boundaries.

But if much work is being done, much more remains to be done. The establishment of the Performance-Based Research Fund recognises that the work at research-led universities like The University of Auckland creates as many benefits for the country as for the students.

It’s an encouraging sign, but it is only a start. Investment in so-called curiosity-driven research is what generates new knowledge, new ideas and the creation of wealth. Our staff and students engaged in such research may seem like they have their heads in the clouds. But they’re looking for - and finding - the future for all of us.

PETER CALDER
Editor



INGENIO ET LABORE

Ingenio



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> NEWS

VICE-CHANCELLOR TO OXFORD

The appointment of Dr John Hood as Vice-Chancellor of the University of Oxford was a source of pride for the university, Auckland and New Zealand as a whole. When he takes up the post in October next year, he will be the first head of Oxford in its 900-year history to have been selected from outside the institution.

Oxford is the oldest university in the English-speaking world and one of the most prestigious. Some 25 Oxford graduates have served as Prime Ministers of Britain (including Tony Blair, the incumbent) while alumni and academic staff have won 45 Nobel Prizes (the writers John Galsworthy, T.S. Eliot, William Golding and V.S. Naipaul among them).

Dr Hood will take over from Sir Colin Lucas who, in a seven-year term, has led Oxford through a period of major internal reform and close external scrutiny. His initial term is five years with possible renewal for a further two years.

He has led The University of Auckland since February, 1999, and will leave in the middle of next year. The search for a new Vice-Chancellor is now under way.

Auckland's Chancellor, John Graham, said Dr Hood's appointment to Oxford University recognised his brilliant achievements and his "very special talents" and outstanding leadership at Auckland.

The Council had totally supported Dr Hood's vision and goals for the university, said Mr Graham, adding: "The direction we have been given and are pursuing under this Vice-Chancellor's leadership will be continued."

In an editorial, the *New Zealand Herald* said Dr Hood would be "a hard act to follow" at Auckland. In four years "a seat of largely traditional learning has gone a long way towards meeting his ideal of a research-led institution of the highest international standard."

In particular "the gap between ivory tower and business" had been bridged, said the *Herald*. "All the while, however, nothing has been allowed to dilute the University's academic standing."



➤ **TOP JOB:** DR JOHN HOOD IS OXFORD'S FIRST IMPORTED V.C.

After obtaining his Bachelor of Engineering and PhD at Auckland, Dr Hood spent two years in the late 1970s at Worcester College, Oxford, as a Rhodes Scholar where he obtained a MPhil in Management Studies. On returning to New Zealand he spent 18 years with Fletcher Challenge, holding senior positions and heading, at various times, its paper, building and construction arms.

Dr Hood said he was humbled to have been invited to lead Oxford, one of the world's great universities.

"It will be a privilege to work with the university's internationally renowned scholars and its global community of students and alumni."

He said he was conscious that this special opportunity would not have been afforded him had he not had the benefit of his tenure at The University of Auckland. "Auckland is an impressive university and I am deeply grateful for the support and wise counsel that I have received from my colleagues during my term as Vice-Chancellor."

LEADERSHIP IS TURNING WORDS INTO ACTION

The idea that leaders are made and not simply born underlies the newly created New Zealand Leadership Institute in the Business School

The institute is the result of energy and ideas that flowed from the Knowledge Wave 2003 Leadership Forum and Dr Lester Levy, the inaugural Chief Executive, says the challenge is to inspire a country that already has plenty of managers and create leaders of passion and vision.

Dr Levy, who has lead a range of health sector organisations, says that leadership is a rare talent, but one that can be fostered.

“Clearly there are people with natural talents for leadership, but I believe that leadership can be learned and if it can be learned, it can be taught.”

The institute is still in its infancy; Dr Levy took up his appointment only in October, and he says the first steps will be developing a vision and a partnership between the university and industry. But he says the institute will draw on existing skills and disciplines within the university.

Dr Levy says that leadership plays an important role in a creating a country that wants to learn, and part of that learning environment is the tolerance of mistakes.

Yet he’s wary of getting swamped in a sea of hazy ideas.

“Ultimately leaders need to get things done. They need to achieve real results



✦ DR LESTER LEVY: “I BELIEVE LEADERSHIP CAN BE LEARNED..”

PHOTO: GODFREY BOEHNKE

and the link between aspiration and achievement is simply the ability to get things done.

“To be a creative thinker without the ability to follow through is no use, so what we really want are people who have got the minds of managers and the souls of leaders.”

Dr Levy brings to the job a wealth of leadership experience. An extensive CV includes roles as the chief executive of South Auckland Health, MercyAscot Private Hospital and, most recently, the New Zealand Blood Service. His

qualifications include a medical degree from the University of Witwatersrand in his native South Africa and an MBA from The University of Auckland.

The Vice-Chancellor, Dr John Hood, says Dr Levy brings an impressive range of skills to the institute.

“Leaders are responsible for turning words into deeds, ideas into action,” says Dr Hood. “We know that leadership is increasingly important for success, be it at an organisational or national level, yet we still know too little about the qualities and practice of effective leadership.”

CREATIVE ARTS COME TOGETHER

Music, dance, fine arts, visual arts, architecture and planning are being brought together in a single faculty which will strengthen the University’s profile.

The Faculty of Creative Arts and Industries will have around 1500 equivalent full-time students and comes into being next year with Professor Sharman Pretty as Dean.

She is coming to Auckland from the Sydney Conservatorium of Music at the University of Sydney where she has an impressive track record as Principal and Dean. Professor Pretty says she is “tremendously excited by the potential that this unique alignment of creative disciplines and genres presents”. By being responsive and

connecting to the cultural and environmental context of Auckland and the wider New Zealand community it will be able to benchmark itself against similar higher education institutes worldwide.

She is looking forward to “engaging with the vibrant community of artists, scholars and students of the University who have developed and embraced this visionary concept”.

The \$A145 million redevelopment of the Sydney Conservatorium of Music was achieved under Professor Pretty’s leadership. Previously she was general manager of Youth Music Australia (Australian Youth Orchestra) which she saved from the brink of financial collapse.



✦ NEW DEAN:
PROFESSOR
SHARMAN PRETTY.

PICTURES BRING THE PAST TO LIFE



A UNIVERSITY PHOTOGRAPHER, BRIAN DONOVAN, MAKES PICTURES THE VIEWER CAN ENTER. **ESTELLE SARNEY** PEEKS INSIDE.



+ **SEEING EYE:** BRIAN DONOVAN'S PHOTOGRAPHS ARE USED IN THE WORLD'S TOP UNIVERSITIES.

Most photographs lie flat on a page or hang on a wall to be inspected in two dimensions. But Brian Donovan, one of The University of Auckland's official photographers, makes images of a different order altogether. You can walk into them, stand in the centre of them, turn to look behind you. You can “zoom” in to study one feature and out to take in the big picture. The eye becomes another camera, panning across the image's expanse.

Donovan's 360-degree photos are so good, in fact, that they're being used for teaching at prestigious American universities like Harvard, Yale and UCLA.

The artist turned techno-whizz photographer specialises in images of archaeological and historical sites, mainly for The University of Auckland's Departments of Classics and Ancient History, Anthropology and Architecture. His

collection from the Insula I.IX site in Pompeii, completed in collaboration with the British School at Rome, takes viewers down streets and around rooms previously buried by the Mt Vesuvius eruption.

An exhibition of his work on the project staged at Old Government House in July was restaged at the British School this month.

Donovan recently returned from a study tour of the Balkans which included one of his most challenging assignments – gaining access to the exclusive Hilandar monastery on Mt Athos, Greece. He wanted to photograph its Byzantine architecture for the university's architecture department, but first had to wade through a sea of sensitive protocols. By a medieval edict that still applies, only men are allowed to visit Athos and if granted permission they must travel by bus, boat and a rough dirt road to reach Hilandar. Having



✦ **BACK IN TIME:** BRIAN DONOVAN (ON THE LEFT OF THE LEFT GROUP) AND OTHER MEMBERS OF THE BALKANS STUDY TOUR REST IN THE GATE PORCH OF HILANDAR MONASTERY ON MT ATHOS IN NORTH-EAST GREECE.

made it there, Donovan had to undertake the sensitive task of persuading the monks to allow him to photograph the interior. His detailed and beautiful photographs will soon allow access to the monastery to anyone with an Internet connection.

On his way home, Donovan revisited Herculaneum – a lesser known city also buried by Mt Vesuvius, which has been only partly uncovered. A theatre still lies underground, accessed by a confusing system of dark, damp tunnels. Even archaeologists are rarely permitted to visit the site, which is being excavated by Italian authorities and an American foundation, but Donovan was allowed inside. Photographing the theatre was difficult, but soon his images will allow viewers to feel they, too, are climbing underground and looking around an archaeological treasure few have seen.

Donovan's images are created using a Swiss-made Seitz 360-degree camera, and Apple Computer's QuickTime software. The camera, powered by a small electric motor, makes a 360-degree turn as

it takes each exposure; the software then makes the image interactive, allowing viewers to look left, right and behind, and to zoom in and out.

Donovan's fascination with photography first took shape as a schoolboy hobby: he had his own little dark room at home and was keen on art which soon led him to a degree in fine arts from Elam, majoring in photography.

In 1978 when Donovan began work as a photographer for the university, desktop publishing hadn't arrived and all reproductions were done photographically. He made slides from books for use in lectures, and served the administrative and public relations needs of the university.

Home computers became his new hobby in the early 1980s, so when digital photography began to emerge in the 1990s Donovan embraced it.

"I was interested in the concept of panoramic images, and used to stitch them together on the computer to give a 360-degree effect," recalls Donovan. "The

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+ OLD BONES: THE OSSUARY AT HILANDAR MONASTERY CONTAINS 2400 SKULLS OF FORMER MONKS.



+ SEA VIEW: THE RUINS OF THE 5TH-CENTURY TEMPLE OF POSEIDON STAND ON CAPE SOUNION, NEAR ATHENS.



+ ANCIENT SITE: MT ATHOS IS ON THE NORTHERN COAST OF THE AEGEAN SEA.

THE INTERNATIONAL RECOGNITION DONOVAN'S WORK HAS GAINED HAS FAR EXCEEDED THE ORIGINAL GOAL OF GETTING IMAGES TO USE IN COURSES ON GREEK AND ROMAN ART, ARCHITECTURE AND ARCHAEOLOGY.

development of the QuickTime technology gave us the ability to make those images interactive, and it became worthwhile to invest in a 360-degree camera."

Donovan's department, the Centre for Flexible and Distance Learning, purchased a Seitz in 2001 for \$16,000. Dr Marcus Wilson, senior lecturer in Classics and Ancient History, says the international recognition Donovan's work has gained has far exceeded Wilson's original goal of getting images to use in courses on Greek and Roman art, architecture and archaeology.

"The Americans have huge budgets for computer reconstruction programmes, but don't produce anything as good as Brian does," says Wilson. "When I've shown his work at places like Harvard and Yale people have been blown away, and jumped at the chance to use it. There's no one else doing what he's doing."

There are countless more sites Donovan could record – among his goals are to visit Egypt, Libya and the Middle East.

"To gain access to sites dating back to the Roman era would be fascinating," he says. ●

HONING HER

What better way for a performing arts student to satisfy course requirements than to write a hit play?

Rising theatre star Dianna Fuemana is living proof that both nature and nurture make us what we are.

The 30-year-old masters student in the School of Creative and Performing Arts is the cousin of Pauly Fuemana, whose 1997 hit song *How Bizarre!* made waves on both sides of the Atlantic as well as *Down Under*. Now her own talent, nourished by the staff at SCAPA and in the English Department, is set to propel her to similar success.

Fuemana's just back from Melbourne where her play *The Packer* was enthusiastically received by audiences and critics (one newspaper described it as "an absolute knockout ... sharp, frenetic and jaw-achingly funny").

The play was written under the guidance of university teachers whose support she describes as "fantastic".

"For me it was all about the craft of writing and structure and learning how I can use it in my work," says Fuemana, who is half-Niuean and half-American Samoan. "It was great."

Writing the play has earned Fuemana points towards her degree, a Master of Creative and Performing Arts, which she will complete this year. But it is not the work of a novice.

The Packer is her third piece for theatre. Her solo show, *Mapaki* (the title means "broken" in Niuean) which she performed at Wellington's Bats Theatre in 1999, traced one woman's journey through the hell of domestic violence and was inspired by the heartrending story of Delcelia Witika whose death in the early 90s shocked the nation. The play earned her two nominations – as best newcomer actress and best new writer – in the

capital's Chapman Tripp Theatre Awards and seemed to promise much. So she was devastated when the critics were "very harsh" on her next effort – *Jingle Bells*, a comedy with a cast of three Samoan women.

She decided to come to The University of Auckland because she wanted a masters degree to add to her diplomas in drama and arts management but she was not prepared for the impact it would have on her craft. She singles out the director of the Diploma of Drama, Murray Edmond, for special thanks. He worked as the dramaturg – the name given to a playwright's mentor – during the birth of *The Packer*.

"To work with a dramaturg who has been tried and tested so that you are not alone as a writer is so great. It gives you a greater sense of knowing that what you are writing is clear and has structure and is going somewhere."

She describes *The Packer* as "a story of growing pains and wanting to get more out of life." Like *Mapaki*, it's a solo piece and is told by Shayne, a young West Auckland boy, played by local actor Jay Bunyan who is now a star of the Australian television soap *Neighbours*. Oddly, perhaps, given Fuemana's longtime interest in Pacific theatre – she formed the cleverly named New Way In Theatre Styles in the late 90s as a tribute to her half-Niuean ancestry – the main character is palagi.

"It might seem unusual," she concedes, "but it's more about my perspective on palagi than on palagi."

Shayne is the only child of a solo parent in a street of state housing whose life is

upended when a family of Niueans move in next door. When Fuemana decided that Shayne would fall in love with the Niuean girl, she threw the normal dramatic – not to mention racial – stereotypes out the window.

"She's very different from a lot of the girls he's had before," Fuemana explains. "She's a university student, she's very astute. That's got a lot to do with changing stereotypes of what I see in the theatre. It's the other shoe, really, a white guy falling in love with a Polynesian girl."

The play, named for Shayne's factory job, played at Bats and at The Storerroom in Melbourne, where Bunyan now lives. The fact that the star is such a marketable talent in the UK has inspired Fuemana's plans to take the show to the prestigious Edinburgh Festival next year. But even if the festival season never happens, the play's success to date should make her a certainty for an A pass.

And the young writer is quick to attribute at least some of her recent success to what she has learned at The University of Auckland.

Taking *Mapaki* to drama festivals in Europe and America, she became acutely aware of the level of artistic support enjoyed by northern hemisphere playwrights.

"They get so much support workshoping their work," she says, "but here, apart from the occasional workshop organised by [playwrights' agency] Playmarket, there's nothing that feeds the playwright. So coming to university and working with the theatre department here has just been the biggest bonus for my development as a writer."

●
- PETER CALDER

CRAFT



+ **PACKING THEM IN:** PLAYWRIGHT DIANNA FUEMANA SAYS THE UNIVERSITY'S SUPPORT HAS BEEN "FANTASTIC".

PHOTO: JOHN McDERMOTT

GENETIC QUEST IS A FISHY STORY

A COMMON AQUARIUM FISH MAY HOLD
THE KEY TO A CURE FOR A HUMAN
SCOURGE. **JASON KING** REPORTS.

To know the deep history of the common aquarium species the zebrafish is to accept one of the lessons in humility that biology often delivers. The 2cm-long, brightly striped fish possess close to all of the genes of a human being. Four hundred million years ago we shared the same ancestor.

It sounds laughable, but the gap between the tiny fish that darts so prettily about its tank and the scientist who gazes at it, is very small. So close that scientists Kathy and Phil Crosier were able to show that zebrafish can develop the same leukaemia as occurs in humans. Rogue human leukaemia cells will disrupt the stem cells of the zebrafish blood system.

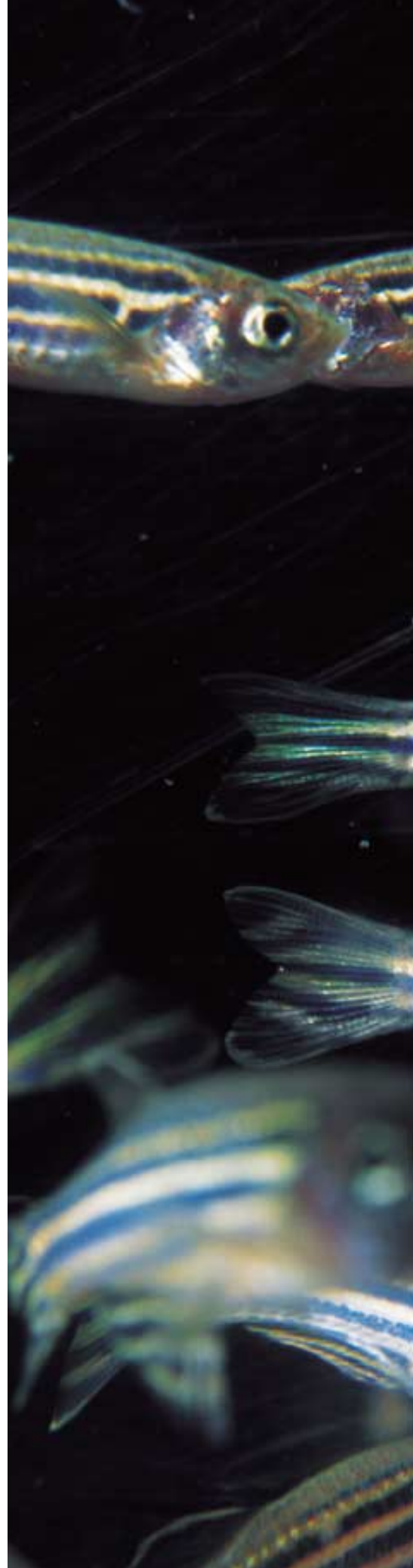
The Crosiers and their team, including PhD student Maggie Kalev, at The University of Auckland's Medical School were the first to show this. After their paper was published in April, 2002, it was selected by *Science*, the prestigious organ of scientific record, as the editor's choice for one of the most interesting recent papers.

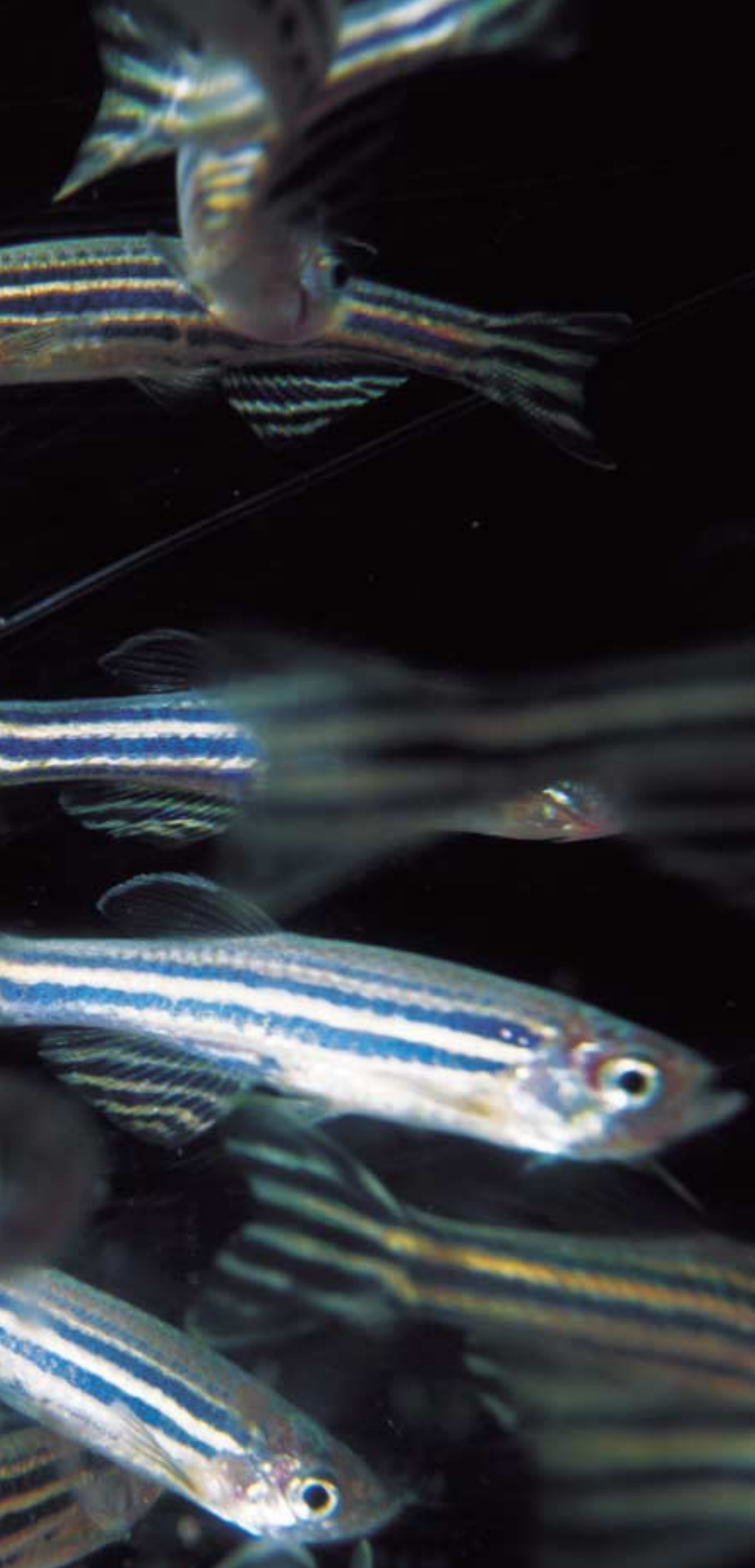
How did a tiny fish that originates from the sacred River Ganges in India attract so much attention?

In developmental biology, there have long been animal models that researchers rely on to mimic human biological systems: the ubiquitous fruit fly, worms, yeast, mice and primates. Today the zebrafish is an important member of the menagerie, as Kathy Crosier explains.

"It's a great model because as a vertebrate it is closer to humans in terms of how the organs develop than, say, a fruit fly or a yeast. Zebrafish develop a chambered heart, kidney, pancreas, pretty much the same organs as us."

Zebrafish blood contains the same components found in human blood: red cells and white cells, including lymphocytes. The fish are hardy and prolific breeders and because they are tiny, are easier to keep than mice. Even better, the young are reared outside the womb; better still, the eggs are transparent, so researchers can watch as the embryos form.





✦ **DISTANT RELATIVE:** THE ZEBRAFISH DEVELOPS THE SAME LEUKAEMIA AS OCCURS IN HUMANS.

On Kathy Crosier's laptop, a series of time-delay images shows the first 24 hours of development. A speck in an egg grows into the faint curved line of a future spine. Then the cells flourish, fleshing out the form of the embryo fish. It happens hundreds of times a day in the Crosiers' laboratory, but she still finds it hard to tear her eyes away from this miracle of life.

The Crosiers and their team are the fish people at the Medical School where Kathy is Professor of Molecular Medicine and Phil co-director of the laboratory. Their conversion came when they were working in Boston in the late 1980s. Kathy Crosier trained as a clinician (she continues to spend a day a week at Auckland Hospital's haematology unit) but in Boston she was following her other love, carrying out blood cell research on a fellowship to the Children's Hospital at Harvard.

Phil Crosier, meanwhile, was a visiting scientist at the biotech company Genetics Institute, in nearby Cambridge.

The area is a hothouse of American science where the Crosiers became acquainted with the pioneering work of American scientist George Streisinger. In the 1960s he proposed that zebrafish would prove to be a valuable animal model, mimicking human development yet allowing genetic tricks that had previously only been possible in yeast and the fruit fly.

When the Crosiers returned to take up positions at The University of Auckland Medical School in 1991, they wanted their own zebrafish facility. Colleagues of the time may have looked askance but today



+ **HUMAN PROXY:** “WITH THE ZEBRAFISH WE CAN IDENTIFY GENES THAT WILL INTERACT WITH PROTEINS KNOWN TO BE INVOLVED WITH CANCER,” SAYS PROFESSOR CROSIER.

the little fish has become big business. Colleague Peter Cattin, who has a background in the aquaculture industry, has spearheaded the development of the facility, and invented a novel automated fish hatchery that the university’s commercialisation arm UniServices, has successfully sold around the world.

At last count there were 350 major laboratories around the world embracing zebrafish research. By 2005 the Sanger Centre, funded by the Wellcome Trust in Britain, expects to have sequenced the entire genome, providing the complete book of life for the zebrafish. The Crosiers, who married after meeting as young researchers at Auckland Medical School, aren’t waiting. They are concentrating on one particular gene, known as Runx1.

Contrary to popular belief the work of science rarely delivers “Eureka!” moments. But for Kathy Crosier, something close occurred almost eight years ago when she was in Seattle at the annual meeting of the American Society of Haematology. Up at the podium, researcher Jim Downing from St Jude Children’s Research Hospital was describing

how he had “knocked out” the Runx1 gene in mice. Kathy Crosier recalls her excitement.

“I knew right away that we had to find it. If we did, it would imply that the gene was important in fish stem cell development. The Runx1 gene would make it possible to look for genes that might make new targets for drugs.”

They did locate the zebrafish Runx1 gene and the sequence work shows that it codes for a protein that is 96 per cent the same as the human counterpart, revealing again how close the human genetic code is to that of the zebrafish.

Runx1 was located on the human genome in 1992 and since then researchers have found that it is a crucial part of the process that results in leukaemia, which is diagnosed in about 400 adults and 50 children in this country each year.

Researchers have also found that a fusion protein, a combination of Runx1 and another molecule commonly called ETO, is the trigger for one form of leukaemia. However in itself, the Runx1-ETO protein does not necessarily lead to the condition. Humans suffering from

leukaemia may have had the fusion protein all their lives. Even if treatment eradicates the leukaemia, the fusion protein can still be located in the patient’s bone marrow. The susceptibility to leukaemia might always be there, but the true puzzle is how a complex series of genetic processes becomes full-blown leukaemia.

Kathy Crosier: “[With the zebrafish] we have the ability to identify genes that will interact with proteins that are known to be involved with cancer.”

In the laboratory, Scott Mead is screening thousands of zebrafish, looking for those that either develop full-blown leukaemia or lose the abnormal cells. Supported by the Marsden Fund, the research should lead to new targets for drugs in the battle against leukaemia.

The zebrafish is such a close genetic analogue of humans that it has become the proxy for research into a wide range of human ailments from diabetes and obesity to arthritis and ageing. With a New Economy Research Fund grant, one of the Crosiers’ colleagues, Maria Flores, is breeding zebrafish to investigate immunity and inflammation problems. Another researcher, Julia Horsfield, has identified a genetic switch that turns the Runx1 gene on and off, which is potentially an important development in the search for new cancer treatments.

Unsurprisingly Phil Crosier is a complete zebrafish enthusiast: “The limit is the investigator’s imagination,” he says.

The Crosiers plainly enjoy working together. As scientists they practically finish each other’s sentences and their research interests, though nominally separate, often overlap.

“Science brought us together, I guess,” Kathy Crosier says. “And it has been good. You do understand what can drive the other to work crazy hours.”

Nine-year-old son Tom brings balance to their lives. The other day he asked if he could have some fish at home. His mother and father glanced at each other, no doubt thinking of their “office” full of fish, and said they would think about it.

Upon reflection, Kathy Crosier said: “Why not? After all what’s there not to like about fish?”

PHOTOS: JOHN McDERMOTT

RESEARCH HELPS TEACHERS TAKE THE HELM

A WORLD-RESPECTED RESEARCH CENTRE IN THE SCHOOL OF EDUCATION GROOMS TODAY'S TEACHERS TO BE TOMORROW'S PRINCIPALS. **CAMILLE GUY** REPORTS.

Pluck a teacher from the classroom and seat him or her at a principal's desk. Overnight the job description has radically changed. The former classroom practitioner is suddenly faced with issues of management, property, legal compliance and financial planning – not to mention the challenge of providing educational leadership to the teachers in his or her school.

For first-time principals, this switch can be daunting. They are taking on a role for which no formal training has been provided. The workload is huge – and it is, of course, lonely at the top.

Even for experienced principals, the educational reforms of the late 1980s which required schools to manage their own affairs brought challenging new duties. So the establishment of The University of Auckland's Principals Centre in 1985 was timely. Based on the Harvard Principals Centre in the United States, the centre is hosted by the School of Education with administrative assistance from the Centre for Continuing Education.

The Centre's academic leader, Professor Viviane Robinson, says the links between the School and the Centre are crucial.

"The strong university link means that the professional development offered through the Centre is research-based. This is crucial in education where what is currently fashionable and popular may not be justifiable in research terms. Teachers can be overwhelmed with innovations and expectations for change. Part of our role is to help them be selective and critical about what is worthwhile."

The Centre has been offering seminars and professional development for experienced principals for almost two decades. But the largest project so far is the newest one: under a government contract, the centre is offering the First-Time Principals (FTP) Programme for all of New Zealand's new principals. The project team, based in the School of Education, is headed by David Eddy and Robinson is the academic leader.

David Eddy brings a strong academic background and practical experience to his role. No ivory-tower educationist, he spent 12 years as principal of Glendowie College in Auckland's eastern suburbs, so he knows from professional experience the urgency of the problems facing New Zealand schools.



no skateboarding

“...NEW ZEALAND HAS ONE OF THE MOST CONCERNING DISPARITIES OF ACHIEVEMENT WITHIN SCHOOLS, RATHER THAN BETWEEN SCHOOLS.”

– DAVID EDDY

“There’s been a heap of national and international research in the past decade,” he says. “Fundamentally, it has shown that while self-management is a desirable thing in many ways, it has in fact not done anything significant to improve the education of children.”

The Ministry of Education has been proactive on this, he says, and has contracted eminent education researchers to monitor achievement in schools. What is more, international bodies like the Organisation of Economic Co-operation and Development (OECD) are benchmarking New Zealand.

Armed with that research, the ministry has developed a number of initiatives, Eddy says.

“They want – in my view rightly – to see some quite dramatic improvements in terms of the achievement of certain groups of children. New Zealand has one of the most concerning disparities of achievement within schools, rather than between schools which is interesting.”

The low rates of achievement among Maori and Pacific students and in decile one and two schools pose “huge challenges” for principals, says Eddy.

Already facing heavy workloads, first-time principals have to sacrifice what used to be called holidays if they are to get the Centre’s help to rise to the challenges of their new roles. The FTP programme requires a commitment to three four-day residential courses in the new principal’s first year. This is voluntary, but the pick-up rate is 98 per cent, which attests to the practical value of what is being offered.

These courses are supplemented by regular mentoring. Two dozen experienced principals, either working or newly retired,

maintain contact – face-to-face, by phone and by email. New principals also share a dedicated and password-protected website.

Megan Bowden, 17 years a principal, and currently at the helm of Royal Oak Primary in Auckland, is one of the programme’s mentors. She is enthusiastic about the mutual support the centre facilitates and praises the “superb” input from experts at seminars and residential courses.

New principals from all schools – Kura Kaupapa Maori, primary, secondary, independent, integrated and state – are all eligible for the programme.

“These groups thought they couldn’t talk to each other,” says Eddy. “It was interesting getting them all together for the first residential course last year. We wondered how they would respond.”

The members of the diverse group initially sat eyeballing each other but the barriers were soon broken down and the principals emerged from the course saying how much they valued the interaction.

“They are not only networking within their own sector,” says Eddy. “Secondary principals can be a pretty precious lot – I know; I’ve been one and you tend to look down on the rest of the world – they now actually have to talk with and engage with primary and Kura principals.”

Principals’ duties include much management and legislative compliance but Eddy doesn’t think being a school principal today is primarily a management role.

“In the early 1990s, I might have said so – with a degree of hesitation. The issues with Tomorrow’s Schools were huge.”

Eddy speaks of a dramatic shift in perception over the past three or four years: now the prime role of the principal is that of educational leader.

“In the 1990s principals were running around checking that all their property plans were up to date, that the budget was balanced ad infinitum. In fact, we sort of lost the plot. We forgot what the school was actually there for.

“It is no surprise that the current ministry is saying ‘Whoa, hold on, I think we didn’t get it right’. The role of the principal is now about engaging in research and thinking about ways they might apply that to their schools.

“How are they going to get their



+ **LEARNING CURVE:** DAVID EDDY AND PROFESSOR VIVIANE ROBINSON: “PART OF OUR ROLE IS TO HELP TEACHERS BE SELECTIVE AND CRITICAL ABOUT WHAT IS WORTHWHILE.”

teachers on board, who have been doing perhaps the same thing for 10 or 20 years? How do you get experienced teachers to shift that practice? You’ve got to open up the classroom doors, and – God forbid, for some of them – let people come in and give them some feedback about whether they are being successful.”

A lot can be done by looking at the achievement data for the whole school and breaking it down by year group, ethnicity, and subject. By looking at what is happening in each classroom and seriously engaging with that assessment data, teachers can learn to plan useful approaches with children who are unsuccessful.

“That stops teachers saying ‘this child comes from a dysfunctional family’, or ‘he doesn’t do his homework’, or ‘she’s Maori, they have different expectations’,” explains Eddy. “There’s this whole host of excuses that can be used as to why kids don’t achieve.”

“One of the strengths of the First-Time Principals Programme,” says Professor Robinson, “is its focus on the leadership of teaching and learning. Since we now know that the quality of teaching makes a considerable difference to student achievement, we show first-time principals practical strategies for inquiring into and promoting the learning and achievement of students in their school. We want them to

use impact on students as their touchstone for answering questions about what works.”

Given this joint intervention by government and The University of Auckland, hopes are high. Certainly the rest of the world is watching the programme keenly. David Eddy reports keen interest from organisations in Australia. He was invited to address the opening this year of the National College for School Leadership in the English city of Nottingham and the FTP programme is one of only five posted as a case study on that college’s website. **1**

PHOTO: JOHN McDERMOTT

DISEASE TACKLED ON BROAD FRONT

Researchers in the School of Population Health are working on the big health questions, reports **WENDY COLVILLE.**

Developing cost-effective strategies to fight disease in whole populations is the cutting edge in modern health science. Researchers in the School of Population Health are answering the big questions of how to prevent disease, and how to fight the most common killer of our time – cardiovascular disease.

Heart attacks and strokes attract remarkably little public attention given that they are so common a cause of death. In the middle-aged, cardiovascular disease is the number-one killer, accounting for 40 per cent of deaths every year.

The Clinical Trials Research Unit (CTRU) is a group of 60 researchers, conducting some of the world's largest studies in a search for the causes of disease – and therapies that work. They focus not on high-tech costly interventions but simple cost-effective strategies. From an unremarkable office block in Grafton, the CTRU conducts clinical trials on the world stage, involving the co-ordination of thousands of participants. Dr Anthony Rodgers, an epidemiologist who is co-director of the unit, says the work is logistically very complicated.

“It’s a huge task to co-ordinate and motivate people over the years that some of these international studies take.”

This largely unsung unit is engaged in figuring out what really works in tackling the big health issues.

“What we mostly do is simply try to find

out what works and what doesn’t,” says Rodgers. “The reason for clinical trials is that there have been countless examples in health of things that were thought to work but didn’t and in some cases actually caused harm. The most topical lately has been HRT (hormone replacement therapy). All those claims about its preventing heart disease just weren’t backed up by large clinical trials.”

Much of the evidential research at CTRU concentrates on heart disease and stroke, and for most 40-year-olds it’s a salutary lesson to realise that being run over by a bus is not their biggest danger.

“What people don’t see is the extent of the burden caused by heart attacks and strokes; the 65-year-old who wakes up with a stroke a week after retiring, the 45-year-old with chest pain so bad he can’t go walking with the kids ... these things don’t make the news, but they happen day in, day out, up and down the country. The thing is that we really know how to prevent it – now it’s the application that we need to focus on.”

Smoking, high blood pressure, high blood cholesterol levels and excessive weight are all ingredients in the recipe for cardiovascular disease, but the strength of those risk factors has been under-appreciated in the past. Rodgers says that, when he was at medical school, the conventional wisdom was these established factors caused about one third

of strokes and heart attacks, but it is now clear that they cause more than 80 per cent of incidents.

“That’s a big difference in terms of how you approach a disease. It is a clear indication that if, at a societal level, you can do something substantial about a few of these risks then you can make a big impact.”

It is a measure of the high regard of the CTRU work, that Rodgers was selected as principal author of the World Health Organisation’s main annual publication in 2002, the World Health Report. The report, presented at the World Health Forum in Geneva in May to the world’s health ministers, focused on the leading risks to health in both developed and developing countries, and co-ordinating and writing the research represented more than two years’ work for Dr Rodgers and his team.

The report also assessed the relative cost-effectiveness of different interventions – and the latest may turn out to be the greatest. A single pill containing a combination of cardiovascular medications (a cholesterol-lowering statin, blood-thinning aspirin and drugs to lower blood pressure) has attracted worldwide publicity. Researchers in London wrote a paper on the pill for the *British Medical Journal*, and the CTRU has trialled its various components over the last decade.

“We and a couple of other groups around the world realised the potential benefit of

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TELLING PEOPLE TO
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SEAWATER.”

putting all these treatments into one low-cost, low-dose pill,” says Rodgers. “For countries like New Zealand it’s got huge potential benefits but the real gains will be in developing countries like China, Brazil and India, where tens of millions of people are at high risk of cardiovascular disease and have little or no access to effective medications. If they could leapfrog ahead to one pill that’s got the best of everything that works, but costs a few dollars a month, there will be huge benefits.”

With such simple steps health care can be vastly improved for whole populations.

The CTRU work focuses not just on what can be done on an individual level, but what can be achieved across whole populations. The results have worldwide implications.

In one of the largest studies ever undertaken, the Asia-Pacific Cohort Studies Collaboration, the causes of disease are being examined in over half a million people. Patterns of disease in Asia are often different from those in the West, and researchers are examining whether the same risk indicators of cardiovascular disease – high blood pressure and so on – hold true in these populations.

“The results from this project really are remarkable, because we found the associations really are the same, across diverse populations, and we can be confident that interventions will work as well in China as they do in the West.”

Dr Rodgers says that clearly the causes of disease must be tackled on a broad front.

“Blood pressure is a good example. Doctors have previously concentrated on the minority of people with hypertension, but we now know that over 90 per cent of adults have non-optimal blood pressure, and that’s a frightening figure. We have to adopt society-wide changes, led at a government level. One of the simplest and most cost-effective strategies is to reduce salt, but it’s no use telling people to eat less salt if all the bread at the supermarket is half as salty as seawater.

“What it means is government talking to food manufacturers on ways to reduce the salt content of food.”

The list of the unit’s ongoing and completed trials makes extensive reading; it includes everything from a study of the health of Freemasons to the effectiveness of strength training for the elderly. Other studies led by co-director, Professor Craig Anderson, show the breadth of research carried out at the unit. The Auckland Regional Community Stroke Study (ARCOS) measures stroke rates in Auckland and the determinants of stroke impact on individuals, families and communities. ONTARGET is a trial looking at a new type of blood-pressure-lowering drug, alone or in combination with other drugs. Involving over 20,000 participants overall, with 6500 co-ordinated in Asia Pacific by CTRU, ONTARGET is one of the largest cardiovascular prevention trials ever undertaken.

Dr Rodgers says the next results coming out will be from a trial of a popular over-the-counter weight loss product, and STOMP (Stop Smoking with Mobile Phones Trial) which tests whether a package of text-message-based support can increase the numbers of young adults giving up smoking.

The emphasis is on low-cost solutions that will benefit the widest range of people. “There are lots of expensive interventions but, if something affordable works too then that can often have more impact on a global scale,” says Dr Rodgers.

For instance, while many people worry whether they will suffer so-called economy class syndrome on their next international flight, those at biggest risk of deep vein

thrombosis are patients undergoing surgery for hip and knee problems. The CTRU ran a 17,000-patient trial and showed aspirin reduced the risk just as well as far more expensive treatments.

“That has important public health implications, and that’s what we like to focus on – things that are practical and affordable and can be used on a large scale, not super high-tech interventions and not rare diseases,” Dr Rodgers says.

If you wonder why some of the world’s largest clinical trials are being conducted from a small South Pacific nation, the answer comes back to talent and ideas.

Professor Peter Smith, Dean of the Faculty of Medical and Health Sciences, says the CTRU has a strong reputation in medical research because of the quality of work done here.

“We are not huge but the amount of high-impact research coming out of here is much more than you would expect for our size. When we say we are a strongly research-led university, we really mean it. We have the ideas and the talent here, and being small can be a great advantage because we can move quickly.”

British-born Dr Rodgers, who has been at The University of Auckland since 1991, says Auckland is a great place to do research because it is a very cost-effective environment. Getting funding is always a struggle for health researchers, but the CTRU has attracted overseas funding – itself a measure of its international esteem. The trial on aspirin was chiefly funded by the British Heart Foundation, with local contributions from the National Heart Foundation and the Health Research Council.

Professor Smith says that the CTRU is developing simple, effective interventions which are relevant to New Zealand but can also be exported.

“There is enormous global interest and international funding that can be attracted because of the work going on here.”

Next year the CTRU joins the newly created School of Population Health, at the University’s Tamaki campus. The School of Population Health will bring together many disciplines into a single school, focused on preventive health strategies and solutions for whole communities. **1**

COUNTRY NEEDS A NEW FENCE AT THE TOP OF THE CLIFF

Every day it seems, media reports highlight the public health system's struggles: bed shortages and lengthening waiting lists in hospitals or the epidemic of meningococcal disease make alarming headlines.

The news stories point to larger issues. New Zealand is being assailed by new and complex health challenges affecting large sections of our population. A fresh approach is needed that will save lives, improve public health, and increase access to quality care delivered by a skilled health workforce.

The old adage holds that it is better to build a fence at the top of the cliff than have an ambulance at the bottom. But our old public health fence is not working well, and the ambulance is becoming more and more expensive.

The University of Auckland established the School of Population Health because we need a new fence at the top of the cliff. Through research, teaching and learning about promoting the health of whole communities, the school will develop prevention strategies and treatments that will not only save lives but help everyone achieve a better level of overall health.

Given the scale of the challenges facing our public health system, the school's mission is urgent. The population's changing age profile and ethnic composition present us with a double disease burden that is placing enormous strain on health care budgets, facilities and staff. The incidence is increasing of non-communicable illness such as diabetes, as well as heart, kidney and smoking-related disease. Meanwhile, our national disease profile is starting to reflect that of a developing country; rheumatic fever, for example, is almost unheard of in Australia's large cities, yet in South Auckland, multiple cases are requiring hospital admission.

Two other factors are adding to the pressure: the huge cost of new treatments and technologies and a global shortage of health professionals that is already having an impact on New Zealand's ability to



A new school in the Faculty of Medical and Health Sciences will promote the health of whole populations which will lead to better care for individual patients, writes the faculty's dean, PROFESSOR PETER SMITH

recruit and retain nurses and rural doctors.

In Auckland – our largest urban and commercial centre and where most new immigrants settle – the impact of these pressures is felt daily. The city's size, diversity and spread of distinct communities means it serves as a microcosm of the health issues facing New Zealand and its regional neighbours as well. Auckland's changing population results in patterns of disease and a demand for services typical of both a developed and a developing country.

This makes Auckland the ideal place to research population health issues – and underscores the logic of basing the School of Population Health in a new purpose-built facility at the university's Tamaki campus.

Population health is a new concept, but its time has come. Until now, disciplines such as public health, primary care or health information have been taught, researched and practised in isolation in different settings. But elsewhere in the developed world this is changing. Information and technology specialists, university-based population health researchers, government and private agencies are banding together in research and teaching clusters. This development has freed up the flow of information and learning and led to rapid innovation.

The formation of this, New Zealand's first designated School of Population

Health is a conscious amalgamation of existing strengths and a vigorous commitment to an innovative model of health research, teaching and learning.

The school will foster and develop new thinking, new structures and new technology, all of which will serve as a model for population-based health care in New Zealand and the region. It will draw on and develop links with Maori, Pacific and Asian communities, as well as the university's strong clinical presence in Auckland, Waitemata, Counties-Manukau and the Waikato. The school will work alongside major public health care funders and providers to develop solutions that complement the work of doctors, nurses, hospitals and other health care providers.

Members of the faculties of Science, and Business and Economics are already located at Tamaki, collaborating in research and teaching. At the same time, the adjacent area is being developed to form a "health technology park" that will put the university's researchers alongside government and non-government agencies and industries.

The opportunities for the School of Population Health to make an enormous contribution to the health of all New Zealanders are enhanced by its location. But its future achievements will be driven by the talent and commitment of the people it is able to attract and retain. We already have many internationally eminent staff. We need more, and also need to bring in young talented people who will lead the school's research and academic efforts in the future.

The University of Auckland is now embarking on an active effort to raise the additional money required to support the School of Population Health's establishment and future growth.

It is an effort to which we will wholeheartedly commit ourselves – because we believe that saving the lives and improving the health of all New Zealanders is worth the effort. **1**

ASSESSMENT TOOL WINS TOP AWARD

A classroom assessment tool created by a team in the School of Education won this year's *Computerworld* award for excellence in the use of IT in education. asTTle (Assessment Tools for Teaching and Learning), as it is known, enables teachers to assess students' learning faster and more easily than was previously possible.

Funded by the Ministry of Education as part of a \$28.4 million package for assessment initiatives, it was tested in 110 schools in 2002. Within weeks of the second version's release earlier this year it was requested by 90 per cent of New Zealand schools.

Expressing delight at the win, Professor John Hattie of the School of Education said his team's goal had always been that "the product would be so good that

whenever a teacher used asTTle the discussion would never be about the technology but about teaching and learning. In the end our IT people exceeded expectations."

In making the award to asTTle, the judges specifically rated it best for innovation. This was echoed by the Minister of Education, Trevor Mallard, who called it "a tool of immense benefit to teachers that must surely have significant international potential.

"Using asTTle, teachers can quickly and easily check how well they are making progress in a way where the whole focus is on helping kids do better – which is of course what we are most keen to see achieved," said Mr Mallard. "This is the best new education investment this government has made."



✦ **TEACHING TOOLS:** THE SCHOOL OF EDUCATION TEAM THAT WON AN IT AWARD.

In the same competition, the Cardiac Magnetic Resonance Research Group led by Dr Alistair Young and Dr Brett Cowan took the "excellence in the use of IT in biotechnology" award for Cardiac Imaging Modeller software that greatly improves general cardiac diagnosis and the treatment of children.

BOOKSHOP TRANSFORMED

Those with less than positive memories of the University Bookshop's cramped premises will scarcely recognise its new home.

After 30 years the bookshop has moved from the Student Quad to a handsome new store in the Student Commons in a prime position on Alfred Street. It occupies 850 square metres on two levels, more than three times the previous floor area.

On its upper level UBS carries a vastly increased range of general books and stationery. There are bestseller and new title areas, a selection of staff recommendations and a section for Auckland University Press publications. Magazines and overseas newspapers are on sale along with University clothing, souvenirs and memorabilia.

The entire ground level is given over to textbooks. ESOL (English for Speakers of Other Languages) texts formerly stocked at UBS's Lorne Street store (now closed) fill 70 metres of shelving. UBS is open seven days a week.



✦ **NEW HOME:** THE NEW UNIVERSITY BOOKSHOP ON OPENING NIGHT.

JUDICIAL ACCOLADE FOR LAW BOOK

The first comprehensive book on our Bill of Rights law, written by past and present members of the Law Faculty, received strong judicial endorsement as it went on sale.

The New Zealand Bill of Rights was "quite simply a classic", Justice David Baragwanath told the launch at Old Government House. No future Bill of Rights case of any significance would be argued or decided without reference to it, he said.

The book had been "the subject of expressed eager anticipation by judges of the senior courts in New Zealand, England, Canada and South Africa as well as by others lower down the food chain," he said.

The 904-page work, published by Oxford University Press, reviews more than a decade of jurisprudence and thinking about the Bill of Rights Act 1990.

Scott Optican, a senior lecturer in Law and one of the four authors, describes it as "useful and helpful to anyone interested in – and concerned about – the legal protection of rights and freedoms in New Zealand today".

BUSINESS CHALLENGE

Staff and students have been learning the kinds of entrepreneurial skills needed to foot it in the business world – and putting these into practice.

They are taking part in spark*, The University of Auckland Entrepreneurship Challenge, a competition to help them turn first-class ideas into world-class businesses. The student-led initiative is based on highly successful competitions at the University of Cambridge and the Massachusetts Institute of Technology.

The winning team receives \$30,000 and the runner-up \$10,000. This prize money must be used to develop the proposed ventures.

More than 100 participants spread across 41 teams – including students and staff from several faculties, together with outside business practitioners – entered spark*'s "\$40K Challenge". The 10 finalists, named in early August, were an eclectic lineup of new business ventures: biotechnology software, oyster-farming technology, new ways to produce and market Indian food, a flat-hunting website,

weather-forecasting technology, an English-teaching product for Koreans, two advanced engineering technology products, and a new specialty retail concept. They were chosen mainly on the overall commercial potential of their ventures.

The 20-person judging panel included successful New Zealand entrepreneurs, technology experts, venture capitalists and industry sector specialists. The finalists then had three months, with extensive mentoring, to develop their ideas into robust business plans.

Cambridge Entrepreneurship Centre Director Peter Hiscocks, who has advised the University on spark*, says the finalists were capable of making a difference to New Zealand. "These are ventures with potential to boost growth and lift New Zealand's economic performance."

spark* was launched in May with a free 13-week course called "Vision to Business". Business School staff and business practitioners taught more than 500 students and staff from throughout the University such entrepreneurial skills as



+ BRIGHT IDEAS: MONIQUE CORNISH, CHAIR OF *SPARK, ADDRESSES THE LAUNCH.

choosing a business idea, understanding intellectual property rights, and marketing and financing a venture.

Spark* is run by the Postgraduate Students Association in conjunction with the ICEHOUSE, the University of Auckland Business School and foundation partners ASB Bank, Microsoft New Zealand, New Zealand Trade and Enterprise, the Edwards Charitable Trust and Auckland UniServices Ltd.

PUBLISHING HONOURS

The high standing of Auckland University Press as a publisher of quality books was reaffirmed when it won the 2003 Thorpe-Bowker New Zealand Publishers' Award for outstanding achievement in the book industry.

New Zealand Booksellers presented this award to AUP for "continually producing fascinating New Zealand books that have outstanding editorial and production standards – as well as beautifully produced, quality poetry books".

AUP also won the best cover category of the Spectrum Print Design Awards (for *Dog*, a volume of poetry by C.K. Stead) along with the biography category of the Montana Book Awards (for *A Sort of Conscience* on the Wakefield family's role in colonial settlement).

The Wakefield book was longlisted for the Montana Awards along with three others from AUP: *Captain Cook in the Underworld* (a book-length poem) by Robert Sullivan, *Songs of a Kaumatua* (60 traditional songs of Tuhoe) by Margaret



+ QUALITY PUBLISHING: ELIZABETH CAFFIN WITH THE BOOKSELLERS AWARD.

Orbell and Mervyn McLean, and *The Book of Iris* (a life of Robin Hyde) by Derek Challis.

The personal skills of AUP Director, Elizabeth Caffin, have been recognised in her appointment as president of the NZ Book Publishers' Association.

Recent AUP books include *The Archaeology of the Pouerua*, *New Zealand Painting: A Concise History* and *A History of the New Zealand Treasury*.

VIDEO INSPIRES

The new University of Auckland video, *Inspiring Minds*, came out on top at the US International Film and Video Festival.

It won the Silver Screen Award in the "Education: College and Advanced Education" category, ahead of 1500 entries from 28 countries.

Inspiring Minds, produced by Omnicron of Auckland, provides compelling glimpses of the University in action. Academics and students across all disciplines share the excitement and challenge of their work. The application of University innovation and expertise is highlighted.

The video is suitable for a variety of audiences including community and commercial partners, visitors, alumni and friends of the University. There are 18-minute and 10-minute versions, and it is also available on CD-ROM and DVD. Please contact the Public Relations Office on phone (09) 373-7599 ext 85885, n.soni@auckland.ac.nz

CLEAR THINKING IS A

Sir Robert Jones may not fit the profile of your average philosopher. But the thinking of the Wellington businessman and novelist is a source of great pleasure to Professor Rosalind Hursthouse, the head of The University of Auckland's Philosophy Department.

In fact, she refers to him as "darling Bob Jones" because she's so delighted by an endorsement he wrote for her discipline.

"He said that professional training for jobs was all very well when jobs were fixed and didn't change, but everything is different now. What one wants now are people who are flexible and can pick things up because they know how to think. And he's said philosophy is the best subject for it."

Hursthouse – who rather understates it when she describes herself as "outgoing" though "charming" would fit just as well – emits a satisfied hoot. As well she should. Even without the Jones plug, philosophy is a discipline experiencing a major surge in interest worldwide. The logic programme at Auckland is in heavy demand from students and the prestigious American-based Philosophical Gourmet Report (www.philosophicalgourmet.com), which evaluates the quality and reputation of philosophy graduate programmes at universities in the English-speaking world, has just rated Auckland's among the top Australasian philosophy departments.

The guide is used by graduates seeking fine-grained information on the strengths of post-graduate teaching. In its latest survey, for the 2002-2004 period, the report included Australasia for the first time. And in this neck of the philosophical woods, only five university departments are ranked. Auckland's, the only New Zealand department to make the grade, ranks third equal with Monash's in Melbourne.

"The philosophy department of The University of Auckland came out so well," enthuses Hursthouse. "We beat the pants off any other university in New Zealand and, in most of the areas we do anything in, we beat the pants off nearly every other university in Australia. So we are very pleased with the Gourmet Report."

Philosophy is experiencing a huge revival of interest and The University of Auckland is leading the renaissance. **GREG DIXON** went to find out why.



TOOL FOR SUCCESS

+ **GOOD THINKING:** PROFESSOR ROSALIND HURSTHOUSE HEADS A DEPARTMENT ON THE MOVE.

PHOTO: JOHN McDERMOTT



The evaluations are based on a survey completed by nearly 180 leading philosophers and the report ranks philosophy departments initially by country or region. But it also grades departments by fields of study, with each department competing with the best in the United States, Canada and Britain as well as Australasia. The University of Auckland department featured in lists of the world's top universities in many key areas:

- 19th-century German philosophy after idealism, alongside Cambridge and Columbia and ahead of Princeton.
- Applied moral, political and social philosophy, alongside Oxford and Rutgers and ahead of Stanford.
- Ethics, rivalling Princeton, Rutgers and Yale and ahead of Cambridge, Cornell and Chicago.
- Philosophy of art and aesthetics, alongside Oxford, Stanford, Harvard, Princeton and Chicago.
- Philosophy of action.
- 20th-century continental philosophy and philosophical logic and philosophy of logic and language.

These accolades place The University of Auckland in a very strong position to attract top-class international philosophy students.

"In the past year, we've really begun receiving inquiries from people in America, people who are interested in coming to work with this or that person in the department."

The department – which Hursthouse has headed since January last year when she came home after 35 years in Britain – is certainly experiencing growth. Its student numbers have been climbing steadily since 1994 – most recently driven by the runaway success of its stage one logic paper.

Nine years ago the department headhunted and appointed Australian logic teacher Associate Professor Rod Girle.

"He's a brilliant man who is reputed to be the world's best logic teacher," says Hursthouse. "He is certainly Australasia's

best. He's incredibly good at it. He just turned our logic teaching around and made it so successful and has now moved on to developing our MA logic programme."

Enrolments in the logic paper have been growing about five per cent a year, though they surged by 10 per cent this year. Around half of all stage one philosophy students – this year, 2325 – are enrolled in logic.

Interestingly, 60 to 70 per cent of those taking the paper are not intending to do an arts degree or even more philosophy. Many are Bachelor of Science students, particularly physics majors, or studying computer science, commerce or law – and many are Asian.

"Their English is their weak point – though they may be brilliant at physics, maths or commerce. The formal logic is all just squiggles. It's like doing maths. So they can do very well at it and the fact that their English is weak will have no effect on their ability to do it."

The paper teaches sentential, or propositional, logic where the logic units are sentences.

"It wasn't discovered until the 19th century. You learn all these fascinating, purely mechanical ways of working out whether one statement really and truly follows from another. Everybody wants their arguments to be valid but apart from just sniffing and saying 'that doesn't sound right,' sentential logic shows you how to break it down all the way across the board, every possible combination."

The paper then moves on to predicate logic where you move inside sentences and study what valid arguments look like when you take account of the internal structure of a sentence.

"I think for Asian students, finding this kind of logical structure in language helps them to put their thoughts into English."

But it is, says Professor Hursthouse, an incredibly useful tool for thinking and argument construction in any field of endeavour.

Bob Jones would no doubt agree. **1**



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✦ **NEW HOME:** THE UNIVERSITY'S EXTERNAL RELATIONS ARM IS EXTENDING ITS REACH.

NEW HQ WILL KEEP ALUMNI IN TOUCH

Thousands of graduates of The University of Auckland have fond memories of their alma mater. Now the university is reaching out to keep in touch with students around the world.

From October, the university's Department of External Relations and Development moves into new headquarters on the corner of Princes Street and Bowen Avenue, opposite the main entrance to Old Government House.

The department's new home was built as a Jewish synagogue in 1858 and when a new synagogue was established in Greys Avenue in 1968, the building fell into disrepair before being beautifully refurbished as a branch of the National Bank. In its new incarnation, it will be known as University House, and will house the Alumni Relations and Advancement Offices, the Public Relations, Communications and Marketing teams and the office of University of Auckland Developments, which seeks to develop new relationships between the university and the business community.

The central location means that University House will be a gateway for alumni and friends of the University as well as for visitors to the campus.

The Director of External Relations and Development, John Taylor, says that current tertiary realities make it vital for the university to communicate its mission more widely.

"We need to make contact and keep in touch with alumni and friends and to seek greater feedback, support and understanding as the university takes on the challenges of the future," he says.

ALUMNI RELATIONS

The University has established a dedicated Alumni Relations Office which will offer a range of services to the more than 100,000 alumni both in New Zealand and around the world. It will provide networking opportunities through www.alumni.net and co-ordinate reunion functions throughout the world. The office will also be a welcoming centre for returning alumni from near and far, where visitors can inspect a University history and heritage display.



CLOSER LINKS

The University of Auckland Society is the new name for the University's Alumni Association. The society's administration will be in University House.

Since its establishment as the association in 1989, the society has forged links between alumni and the university: it hosts events where alumni and friends network, offers support to current students and is involved with many university activities. It has awarded some 76 Alumni Scholarships and acted as an advocate for the university on pressing tertiary education issues. The society's initiatives, such as as the Distinguished Alumni Awards and the Graduation Concert, are now established as not-to-be-missed events on the university calendar.

The society, whose president is law alumnus David Abbott, is dedicating itself to offering more opportunities to be involved with the life of the university. Members will receive monthly updates on its work in *University News* and be assured of advance notice of University of Auckland functions throughout New Zealand and internationally. Recent such events in Wellington and London show they are a very popular way of bringing alumni and friends together to celebrate the university and their connection with it.

Members already receive preferential booking for major university events such as the Distinguished Alumni Awards dinner, discounts from partner organisations which support the university, as well as from the Auckland University Press, and the University Bookshop, and greater opportunities to network with other alumni and friends as well as staff and students. Crucially, they can help advocate for the university on key political and academic issues.

FIRST CONFERENCE WILL WELCOME UNIVERSITY FRIENDS

The Society will host the first University of Auckland Alumni Conference on March 5, 2004. This one-day event will offer a chance to explore the ways alumni and friends can contribute to the life and success of the university. The conference will have outstanding keynote speakers and will culminate with the Distinguished Alumni Awards dinner in the evening. Keep this date free and look out for more information in early January.

Everyone who has attended The University of Auckland either as a student or staff member as well as those who support the university in other ways is eligible to become a member of the society. A reply form is enclosed in this magazine. If you would like to be kept in closer touch, simply complete it and send it back in the reply paid envelope. The society welcomes feedback about services or benefits it might offer as we plan for a more dynamic future.

The University of Auckland Society:

www.auckland.ac.nz/society

Email: society@auckland.ac.nz

LOCAL HEROES SHINE ON WORLD STAGES

Auckland alumnus Andy Lark is the inaugural winner of the World Class New Zealander Award.

Lark, Auckland-born and bred, is now based in Silicon Valley as the Vice President of Global Communications and Marketing for the IT giant Sun Microsystems.

The award, established by Industry New Zealand, recognises an expatriate who is making an outstanding contribution to New Zealand's economic development.

Lark, who graduated from The University of Auckland in 1988, with a BA in Art History and English, founded and leads the Global Network of Kiwis (GNOK). This is a group of offshore New Zealand executives who, without charge, help companies break into international markets by providing practical advice, mentors and contacts and helping raise venture capital.

Presenting the award, the Minister for Economic, Industry and Regional Development, Jim Anderton, praised Andy Lark for his demonstrated passion about New Zealand.

"You have helped New Zealand high-tech businesses address the most difficult challenge many companies face – securing access to US capital and product markets," he said.

Lark said he was gratified and excited that the award had been created.

"It shines a spotlight on the efforts of Kiwis in offshore markets who are giving something back to the country. There's a real movement of Kiwis coming together globally to assist New Zealand companies and entrepreneurs and the award will encourage and promote that."

Highly commended in the awards was Dr Jilly Evans, the Director of Pharmacology at pharmaceutical manufacturer Merck Sharp & Dohme, who began a distinguished international scientific career at The University of Auckland where she gained her BSc and MSc (first class honours) in Cell Biology in the 1970s.



+ INAUGURAL WINNER:
ANDY LARK



+ HIGHLY COMMENDED :
DR JILLY EVANS

NOTHING BUT THE BEST

A thing of beauty is a joy forever. Well, for a generation anyway.

GREG DIXON explains.



PHOTO: JOHN McDERMOTT

Its beauty strikes even the uneducated eye. The black enamel surface gleams, the handsome lines assert its claim to be the centre of attention in any room – and not just because it's so big.

But it is when a human hand settles on its keys, when fingers begin to move and coax from it a rich sound which seems to fill the School of Music's Music Theatre auditorium, that its real beauty becomes apparent.

On a night in March, six of New Zealand's finest young pianists introduced audiences to the stunning new addition to the school's stock of instruments, its new Steinway concert grand.

That evening began a year of celebration and much of the rest of the school's 2003 concert programme has also honoured its arrival.

With a price tag of \$220,000, the Model D grand – “the big beast in the Steinway family,” says the school's head James Tibbles – deserves such a festive reception.

Handmade in birch, maple and walnut, with keys of Bavarian spruce, the piano has some 12,000 parts and took almost a year to make.

It is an important and significant investment, and not simply because it is the largest single instrument purchase made by the school for more than a decade; this black beauty, which arrived in the country last December, is also essential for practice, live performances and radio and CD recordings.

The school's reputation and standards demanded the new instrument. Tibbles says that there is no doubt that students are drawn to the school's piano programme by the wide international reputation of the school's staff.

“But for our programme to be thriving and successful, we need the equipment. Not having it is like not having a building to teach in. It is that fundamental.

“Providing appropriate equipment like the Model D and matching that with our outstanding staff, is hugely important. You have to have the package right and if one element of the package slips a bit then it's not good.”

The instrument essentially replaces itself. Another Steinway D had grown old in the school's Music Theatre – where there is at least one important performance a week – during its 15 years in service.

This, Tibbles says, may not appear a long life though it is.

“Given the amount of use it gets, it had probably had 30 years of heavy constant use by many, many thousands of students and visiting players.”

“The instrument had become very difficult to maintain to a consistent level standard, and the tuning kept moving. At a certain point, maintenance doesn't achieve the result required. It's like a car; no matter how well you maintain it, it will eventually wear out.”

The jewel among the school's stock of 50 or so pianos, it had to be replaced, and quickly.

“This was the moment,” Tibbles says. “If we weren't successful in funding, then the school's reputation in the concert arena would be weakened. So it was clear that that was the moment, and that waiting another couple of years might have been quite difficult.”

The piano was handpicked at the Steinway factory in Hamburg, Germany by a colleague (and a former student) of the head of the School of Music's piano department, Bryan Sayer. It was very important that the instrument was hand-picked. Pianos from the same workshop might appear to be the same but hand-finished instruments have strong elements of individuality, meaning that a particular instrument may be more suited to a particular type of venue, style of performance or tonal requirement.

“What our Model D doesn't need to do is to present the major concerto repertoire with a full symphony orchestra. So sheer loudness and projection was one of the last things we needed. In this venue, what we're seeking is more finesse, subtlety and tone quality.”

The arrival of such a grand, expensive and important instrument is rather like launching a boat, Tibbles says.

“But the champagne bottle did not hit the instrument, I assure you!”

Instead the series of concerts has welcomed the Steinway, beginning with the *Purely Piano* recital in March, which featured one of the school's most outstanding advanced students, 17-year-old John Chen.

The prodigy, who has studied under Rae De Lisle since the age of seven, recently returned from Brisbane where he cleaned



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up nearly all the prizes in the prestigious Lev Vlassenko Piano Competition.

Another who has welcomed the piano in solo recital is the school's associate professor of piano, Tamas Vesmas, who was awarded the Claude Debussy medal in April for his services to the French composer.

Most recently, Vesmas and Sayer presented a programme of piano duos and duets. This unique event was not only a celebration of the School's piano programme and its fine new concert grand, it was also the last time that retiring senior lecturer Bryan Sayer was to be heard performing as a staff member in the School of Music. It was an event that celebrated the superb new acquisition. **1**

IN SEARCH OF THE PERFECT DROP

Science is improving the practice of the ancient craft of winemaking, explains **CAMILLE GUY**.

Ultimately it is our palates, whether educated or naive, that discern the quality of wines. But in the Science Faculty of The University of Auckland, researchers are developing techniques that take some of the guesswork out of the production of quality wine.

Students in the Master of Wine Science degree are studying the process of winemaking, bringing modern science to bear on one of the most ancient of crafts. Meanwhile, doctoral students are engaged in exciting partnerships with top winemakers Mission Estate and Montana seeking to expand the boundaries of traditional winemaking knowledge.

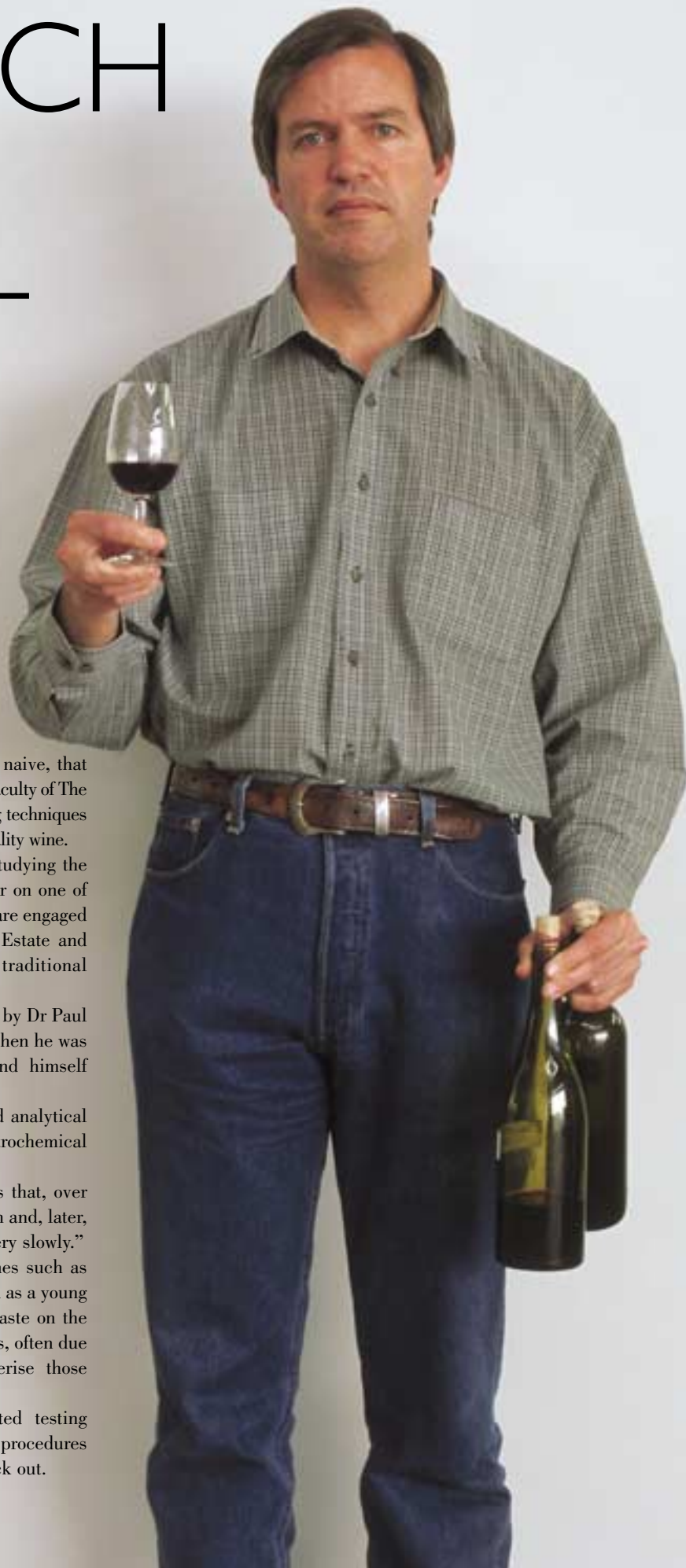
The two-year degree course, launched this year, is run by Dr Paul Kilmartin, who first encountered wine science in 1988 when he was doing a masters project in electrochemistry and found himself putting electrodes into wine to gauge its quality.

Upon his appointment in the area of food science and analytical chemistry, he began to look once more at wine using electrochemical procedures.

“What’s going on crucially during wine maturation is that, over time, parts of the wine oxidise slowly during fermentation and, later, in the bottles. So you are getting oxygen uptake, often very slowly.”

Kilmartin wants to study those processes. In red wines such as merlot and cabernet sauvignon, some molecules lengthen as a young wine matures, changing the initial bitter or astringent taste on the sides of the mouth. That tends to soften up as a wine ages, often due to slow oxidation processes. Electrodes can characterise those compounds in different ways.

Kilmartin says the human palate is a sophisticated testing mechanism but the electrode and gas chromatographic procedures can identify the components that the nose and palate pick out.



A lecturer from Bordeaux, Dr Laura Nicolau, is developing chromatographic procedures to pick out key volatiles in New Zealand sauvignon blanc wines.

Key compounds give our sauvignon blancs the distinct style and characteristic odours that are so highly prized worldwide. By identifying key components and working out which vineyard practices or fermentation methods maximise those, you can provide wine drinkers more exactly with what they want.

“So you might want to make one style of sauvignon blanc which is very strong in, say, the fruity aromatic odours” says Kilmartin. “For another style of sauvignon you might have the more green peppery characteristics coming to the fore. While the whole quality blend is still very much the art of the winemaker, and skills in the vineyard, we hope we can provide the industry with some tools to maximise the potential that is there in the grapes.”

Kilmartin has always enjoyed a glass of wine, and says his research has not turned wine drinking into a chore; the more you know about it, the more you enjoy it, he says. Over the past five years his tastes have developed to the point that he now belongs to a wine club and wishes he could afford more of our quality pinots.

Kilmartin’s MSc students can take courses in winemaking in a New Zealand setting, the science behind grape-growing and winemaking, sensory evaluation and statistical methods, and the business of wine production. Lecturers and researchers already working in wine-related fields in chemistry, biological sciences and geography are involved in teaching these courses alongside Wine Science staff and leading winemakers. Professor Richard Gardner of the School of Biological Sciences is bringing his expertise in yeasts and genetics to bear on wine science.

The teaching programme has close associations with the newly established Wine Industry Research Institute of New Zealand co-ordinated by Dr Nick Lewis. Located at The University of Auckland, the institute conducts research on trade, markets, industry development and biophysical production environments.

The masters students are not confined to the laboratory. In their first year they begin with an allotment of grapes, monitor

the fermentation using a range of analytical techniques, and make decisions which affect the style of wine they produce. Currently Kilmartin is organising the printing of a label for the first bottling of students’ chardonnay.

Last autumn, students handpicked grapes from a West Auckland vineyard during a difficult, frost-plagued vintage. The students learned much about the contemporary scientific knowledge about grape production for winemaking. They became familiar with the application of traditional and modern molecular methods in plant science and plant pathology, as they apply to grapes and vine attributes.

The students crushed and pressed the grapes in the Wine Hall on the Tamaki campus to produce their first chardonnay wine in 20-litre lots. In the process they learned both traditional and modern methods of winemaking. They had to make decisions about how much oak to give the wine, and when it should undergo malolactic fermentation to soften the acids.

“Chardonnay is a good wine for teaching purposes because there are a lot of decisions to be made,” says Kilmartin.

The outcome of the students’ work was some quite different wines made from the same grapes.

Students were also introduced to the economics of grape growing, winemaking, winery design and management. They learned about distribution and marketing. They had the opportunity to study special topics including wine law, use and negotiation of contracts, small business development, stock valuation, issues of appellations, labelling and brand development. Environmental and resource management issues and health and safety regulations were covered.

But the emphasis of this new course is less on viticulture and wine making, which are already taught at Lincoln University in Canterbury and at several polytechnics, than on wine science.

The industry has been supportive, and has provided advice and mentors for some research projects. Several doctoral students are conducting research which may one day benefit our wine industry.

Take the matter of giving wine time in French oak barrels. Providing these for red wines or for chardonnay may be desirable. But the barrels, which cost up to \$1500

each, can only be used for two or three years. Some lower-priced wines may do almost as well in stainless steel tanks with oak shavings added.


But besides adding oak flavours, barrels allow a small, continual in-flow of oxygen to the wine. So part of the maturation prior to bottling is allowing that to happen in order to soften the tannins.

Wine stored in tanks used to be pumped from one tank to another every two or three months. That let the air in, but provided a massive dose all at once. Micro-oxygenation equipment will continuously add very small amounts of oxygen, thus simulating barrel ageing. PhD student Stuart Dykes is studying the application of micro-oxygenation (through modelling of oxygen diffusion, along with sensory and polyphenol profiles of experimental wines) involving Mission Estate Winery.

In another project, doctoral student Paul Butler focuses on determining the best time to harvest pinot noir grapes. Grapes are generally picked when their sugar level is highest, which is when they are fully ripe. But the colour and mouth feel of pinot wine are determined by the polyphenols in seeds and grape skins. These need to be at optimum ripeness too.

So this project, based at Montana Wines in Blenheim, is looking at ways of telling when the grape seeds are just right from the phenolic point of view. Researchers can tell by chemical tests what colour matches the right degree of ripeness for seeds, so that may influence time of harvest in years when you need to get the colour right and that may be as crucial as sugar levels or alcohol content.

Says Montana research manager, Andy Frost: “The wine industry in New Zealand is expanding internationally in the quality end of the market. As that happens we need more and more people with a high level of skill. That is where courses such as that at The University of Auckland, focusing close to exclusively on wine science, fit in. It is a valuable addition.”

An opening for the Tamaki Wine Hall will take place on Friday November 21, by way of a one-day conference entitled “Researching a future in the New Zealand wine industry”. Overseas wine experts from France and Australia will be joining local speakers for this occasion. 

SPRIT OF ARDMORE PRESERVED IN FUND

Students at the School of Engineering are getting a helping hand from a fund established by alumni keen to preserve the memory of their own university days.

And one of the school's most illustrious graduates, Sir Graeme Davies, has boosted the fund with a generous donation of \$25,000.



✦ **SIR GRAEME DAVIES:** GENEROUS CONTRIBUTIONS.

The Ardmore Fund, which was established by alumni from the classes of 1957 to 1959, is named after the old Ardmore Aerodrome site which housed the School from 1948 until it moved into its purpose-built headquarters on

Symonds Street in 1969.

Students in the Ardmore years endured conditions which would now be seen as appalling: they lived in a hostel built for

air force servicemen and their lecture theatres and laboratories were aircraft hangars with aircraft coming and going throughout the day.

But alumni remember the Ardmore years as a happy time and often speak of "the spirit of Ardmore" – one of comradeship and helping others struggling with study, finances or homesickness.

The alumni started the fund in 2000 with money left over after a student reunion. Generous contributions since then have included the donation by Sir Graeme, who graduated with a BE Mechanical in 1960 and a PhD in 1962. Sir Graeme has pursued a distinguished academic career in the UK, moving from a teaching position at Cambridge to a professorship at Sheffield before being appointed Vice-Chancellor of the University of Liverpool in 1986. He has worked as chief executive of the Universities Funding Council and the Higher Education Funding Council and in 1995 became Principal and Vice-Chancellor of the University of Glasgow.

He took up the position of Vice-Chancellor of the University of London in September 2003.

Sir Graeme says he values his connection to the Engineering School, which in 2002 conferred on him an Honorary Doctorate of Engineering, and to the university through his membership of the Board of the UK Friends of The University of Auckland Trust.

"It allows me in a small way to put back something of the real value I gained from my education in Auckland. I have no doubt that building a resource base through the trust will be of great benefit to the university and to future generations of staff and students," he says.

The Ardmore Fund last year awarded its first scholarship – to Clinton Every who is now in the final year of his degree in BE in Civil and Environmental Engineering. This year two more awards were made to Carl Pederken, a third-year BE student, and Ashley Gray, a second-year BE student, at the school's annual Alumni Dinner.

BEQUEST BENEFITS HEARING-IMPAIRED STUDENTS

Hearing-impaired students Joanne Chuang, Amy West and Sarah McDowall have had to overcome huge difficulties to pursue their chosen courses of study. Now their determination has been recognised with the award of scholarships that will open up further opportunities for them.

The three women are the latest recipients of the Dulcie Bowman Scholarship which assists hearing-impaired women students attending

The University of Auckland. The scholarship was established by the late Alva Bowman, Dulcie's sister, in memory of a woman who, despite a severe hearing impairment, graduated from The University of Auckland and became a successful teacher.

Alva established the scholarship in 1996 with an initial gift and when she died in 2001, she generously added to it through a bequest from her estate, increasing the annual value of the scholarship to \$2500.

Joanne Chuang, who was diagnosed with a severe hearing disorder as an infant, is in the last semester of a BSc majoring in



✦ **SCHOLARSHIPS:** JOANNE CHUANG, AMY WEST AND SARAH McDOWALL.

psychology. She hopes to fulfil an ambition she has nursed since she was 12 by beginning a masters degree in audiology next year. The scholarship funds will help towards her fees.

Amy West, who has no hearing at all in one ear as a result of a tumour, hopes to complete her PhD in Film, Television and Media Studies in mid 2004. The mother of a two-year-old, she plans to put the scholarship funds towards a laptop computer to allow her more

flexibility to study whenever she has a spare moment.

Sarah McDowall, who is in the last semester of a BMus in performance, has recently become the lead cellist in the University Orchestra. She has been accepted for the Royal College of Music in London where she will begin study next September. But the award of the scholarship has prompted her to enrol in an accelerated honours programme at the School of Music next year. Sarah has had impaired hearing since birth and wore hearing aids to lectures but manages without them now that her study is mostly performance-based.



REACHING FOR THE STARS

US-based engineering graduate Karen Willcox has always wanted to be an astronaut. Back home for a short holiday, she told **ESTELLE SARNEY** that her dream may yet come true.

PHOTO: AARON MIHALIK

It was *Star Wars* that did it for Karen Willcox. As a five-year-old, sitting in a darkened Auckland cinema, she was enthralled by the space battles exploding before her eyes. She decided that being an astronaut might be pretty cool.

Next year, she may just have a shot at realising that childhood dream. The University of Auckland graduate is now based in the United States and does work for the American space agency NASA. Needless to say, she's keeping tabs on when the space agency might open places for a new astronaut trainee intake.

"By next year I'll be eligible for American citizenship," says Willcox during a holiday back home in Auckland. "Then I'll have everything I need to apply. The thought of becoming an astronaut is one of those things you never quite grow out of."

She hopes NASA's Educator Astronaut initiative, which accepts teachers into its programme, might help her case.

In her day job, Willcox is an assistant professor in aeronautics and astronautics at the prestigious Massachusetts Institute of Technology (MIT) in Boston, one of the world's top schools for teachers and students of aerospace engineering. But between lectures, the 31-year-old works with aircraft maker Boeing in California on developing a revolutionary new aircraft design, and with NASA in Virginia, on minimising aircraft noise and emissions.

This career, which may soon see Willcox literally reaching for the stars, started at The University of Auckland where she completed a Bachelor of Engineering in Engineering Science (first class honours). Her final year project, supervised by Associate Professor Andrew Pullan and Dr Roger Nokes,

focussed on boundary element analysis of flow around aerofoils.

Professor Mike O'Sullivan, head of the Department of Engineering Science, says Willcox was one of the top two students in her intake, which graduated in 1994.

But Willcox says that she reached the end of her degree with no idea what she wanted to do.

"Space and planes were the only things I had a spark for," she says, "and the thought of going overseas to study aerospace engineering stuck in my mind."

Willcox went to MIT to do her masters degree, which focused on computational fluid dynamics – working out ways of predicting airflow over aircraft wings and studying how the flow interacts with the wings' structural dynamics. She then advanced to do her PhD in aeronautical engineering, where she applied the same scrutiny to aircraft engines.

Her research attracted the attention of Boeing, the world's largest aircraft manufacturer, which set her to work on its Blended Wing Body, a futuristic aircraft in which one giant wing replaces the traditional model of wings and fuselage. Some say it could be flying in about 10 years – if the engineers and businessmen can agree on design and cost.

"A lot of my work on that project is interacting between those two camps. Everybody wants to make money out of it," says Willcox, adding that aerodynamic research must eventually fit the financial constraints of aircraft companies.

Her other research project, for NASA, is driven as much by legal necessity as the urge to improve design.

"Aircraft noise is becoming a huge deal, especially in Europe. Heathrow, for example,

won't let a plane fly in if its noise is above a certain level."

Willcox is working with a colleague at Stanford University in California to put together a design tool that will help aircraft designers minimise noise and emissions at the drawing-board stage.

"Until recently, you built your aircraft, and thought about environmental issues later. These days, those issues have to be among your primary considerations, along with the economics – airlines have to be able to afford to fly these planes."

With all this work, Willcox might be expected to have no time to herself. But she still manages to snatch the odd weekend to indulge her love of hiking and camping with her husband, Jaco Pretorius, a South African mechanical engineer she met in Boston. She's also taken up cross-country skiing in winter.

She manages to get home to see her family a couple of times a year, and usually pops in to see her former teachers at the School of Engineering. She doesn't dismiss the possibility of joining them in the future. In the meantime, she has joined the board of the New England branch of KEA – the Kiwi Expats Association – which finds ways that skilled New Zealanders overseas can help students and business back home.

"Part of the reason American universities do so well is that their alumni networks are so strong," says Willcox. "Their alumni donate so much money and resources, find jobs for students over summer and so on. Most of us in KEA want to come back to New Zealand one day, so it's in our own interests to help make The University of Auckland a really strong place to come back to." **1**

WORLDWIDE UNIVERSITY

More and more students are taking advantage of a scheme that allows them to move seamlessly between The University of Auckland and top universities overseas.



+ HOME AGAIN: CATHERINE HAROLD AND ANDREW FRASER.
PHOTOS: GODFREY BOEHNKE

Catherine Harold always had it in the back of her mind that she would study abroad. The law and arts student, who went to Rutherford High School in Auckland, had spent a year of her secondary schooling in Switzerland on an American Field Service (AFS) scholarship and was keen to get back out into the world as soon as she'd finished her undergraduate degree.

Then one day in the library she “fell over” a display of information about 360 Auckland Abroad – a student exchange system between The University of Auckland and more than 65 university exchange partners around the world.

“I thought: ‘I don’t have to wait; I can do it now,’” she recalls. “Law and arts is a five-year degree and I was getting near the end and feeling like I really needed a break.”

Catherine ended up in Nottingham, the East Midlands city famous as the home of Robin Hood – though she admits she was far too busy to make it to Sherwood Forest, the home of the legendary outlaw.

She was attracted by the knowledge that she could study overseas but pay New Zealand university fees and the legendary living costs in England were “not as big a leap as people think.”

She was paying only £40 a week for a room in a flat – at around \$100, that is comparable with Auckland prices. But her flatmates left her in no doubt she was far from her home town. For a start she had lived in an on-campus apartment, with a Canadian, a Mexican and two Americans, and in the flat, where her bedroom was a charming small space in the attic, she lived with several English post-graduate students.

Catherine, now 24 and in the final year of her BA/LLB, is delighted at the way studying abroad broadened her academic perspective.

“I took a comparative law course in civil liberties, for example, comparing the UK and the United States. Coming at a subject like that from overseas it makes you take a step outside.”

But the advantages of the exchange were not all one-way.

“What you realise is that you provide a valuable contribution as well. The lecturer in one of my courses was very interested in our accident compensation system which is unique in the world. So not only are you learning about things from a different perspective but you are also bringing knowledge that helps the students you are learning with as well.”

For students at many American and European universities, spending a semester abroad is standard practice and Catherine is really glad she made the leap.

“The interaction with so many students from all over the world was not something I had expected prior to my exchange but definitely made the whole experience more rewarding.”

Similarly enthusiastic is Andrew Fraser, who was halfway through the second year of his Bachelor of Commerce degree, majoring in accounting and finance, when he left. He went for two semesters to the University of California Los Angeles (UCLA) and found the whole process of arranging the exchange and crediting his American work back here “incredibly easy”.

“I love to travel and I thought it was a really good opportunity to have new experiences and meet new people,” says the 19-year-old. “UCLA is a world-famous university, offering really amazing academic opportunities.”

Andrew says he had no difficulty living in the city which is famous for freeway gridlock and urban sprawl. The university is

sandwiched between the fabled areas of Beverly Hills and Bel Air and, like most students, he lived where he studied.

“Almost everyone lives on campus and so it’s almost like a minimum-security prison but in a really good way. We had our own police force and it felt really safe.”

Both Catherine and Andrew were pleased to find that the academic demands of their universities abroad were no heavier than those at Auckland, although Andrew says UCLA’s accounting courses were very theoretical.

“In Auckland it is much more practical and hands-on. I’ve never done so much reading in my life!”

The experience has forged good friendships – one of Andrew’s American buddies has already visited him here even though he arrived back only in July.

“The on-campus life was absolutely amazing. Because everyone lives on campus or just off campus there is a real campus life.”

He would not hesitate to recommend the programme.

“Not too many people know about it at this stage but as more and more people become aware of it, it will really take off. Even though The University of Auckland is the top university in New Zealand and one of the best in the Asia-Pacific region, it gives you the chance to get out of your comfort zone and experience new things which you wouldn’t otherwise get. It was amazing.”

- Students wanting to explore the possibility of studying abroad should either visit the website www.auckland.ac.nz/360 or contact Ross Crosson, the Auckland Abroad Co-ordinator, on ext 83956.



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