

# definingnz

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## Spirited ventures

MBA graduate Bonny Waaka investigates  
why tourists are drawn to the dark side



Distance learning: For all the people  
Art and science meet in lights  
Te Aute College's legacy of leadership

Te Kunenga  
ki Pūrehuroa



MASSEY UNIVERSITY



**Our lives are shaped  
by the discoveries  
we make**

Forever discovering



MASSEY UNIVERSITY



Te Kunenga ki Pūrehuroa





“We are determined to continue to lead the way in an era when online and blended forms of learning are going to become ever more present.”

**T**his issue of *DefiningNZ* celebrates 50 years of extramural/distance learning at Massey University. More precisely, the celebration is about 50 years of transforming lives.

I taught sociology in Massey’s extramural programme in the 1970s and ’80s. In a 12-year period literally thousands of people from all over the country and around the world passed through my classes. They came from all walks of life and in all cases they were changing their lives.

Those decades were years of transformation. New Zealand moved from being inward looking, highly regulated and conservative to outward looking, deregulated and at the cutting edge of change. All kinds of social movements were making an impact: environmentalism, the youth movement, anti-war protests, feminism, the Māori renaissance, opposition to nuclear weapons, anti-apartheid – the list goes on.

This change made for wonderfully interesting classes packed with people who matched everything they learned from the textbooks with real-life experiences. It was a heady and exciting mix.

My memories are of working with a dedicated group of staff, marking large numbers of essays, writing study guides, travelling the country to meet with students, revelling in the intensity of campus courses, discussing all kinds of issues with fascinating people, trying out new technologies to enhance learning and being aware that right before my eyes education was equipping people for the new world that was taking shape.

During my 20 years away from Massey I have bumped into former students in all walks of life and listened to them talk about their time at Massey. The common theme is that without the opportunity to study extramurally they would not have been able to study at all. They had jobs, children, partners and mortgages. They lived in remote parts of New Zealand or could not afford the costs of full-time study. Extramural was their means of gaining the knowledge they wanted.

My experience as a teacher is now decades old, but the same ability to transform lives is what extramural/distance study is all about today. That is why Massey is proud to identify itself as the pre-eminent provider of university-level distance education in New Zealand. We are determined to continue to lead the way in an era when online and blended forms of learning are going to become ever more present.

In my view, the 21st century will see many more people choose to learn at a distance. It will be a preferred form of learning because the technology available will make it the best form of learning – particularly where it can be combined with periods of face-to-face learning.

In addition, the sheer number of people wanting to learn will drive the demand for more flexible forms of learning. Not just in New Zealand but around the world. Literally hundreds of millions of new learners worldwide will be looking for the opportunity to study this century. It will not be possible for all of these people to study full time on a campus.

That is why we intend not only to continue to offer New Zealanders the opportunity to learn at a distance but also to greatly expand what we do around the world. Massey is one of the world’s most respected providers of distance learning and we intend to build on that reputation.

In this issue of *DefiningNZ* you can read about MBA graduate Bonnie Waaka’s unusual tourism venture – the old Napier prison, the long-serving former extramural student president and PhD student Liz Hawes and her passion for life-long learning, young national cricketer Gareth Hopkins who is completing a BBS between innings and an inspiring young Māori PhD student identified as a leader of the future.

Steve Behn

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# HAUNTED HILL

It occupies some of the best real estate in the city, yet it is where the worst in society were sent. Now, the Napier Prison is open for anyone to experience, and it is a frightening walk through history.

Bonny Waaka talks to Bryan Gibson about her role in the family business, and her research into what drives people to dark tourism.

Photographs: Bill Kearns





**B**onny Waaka (Ngāti Pahauwera) runs Napier Prison Tours with her parents, who took over the property on the city's hill in 2002, a decade after it was decommissioned. The family business has moved from hostel accommodation to tours through some of Napier's dark past.

"The original idea was accommodation," she says. "But we had a constant stream of people knocking on the door wanting a look around, or saying 'I was in here once', so we began developing the tours. Now, we have changed the main focus to providing tours but have limited spaces for people wanting to stay. There are at least 12 hostels in Napier and Hastings and this place is unique so we thought we could be doing something else with it."

Now, visitors can take guided or audio tours of the prison and see first hand the rooms that housed the city's criminals.

But the operation relies on more than the bricks and mortar. Waaka, who graduated this year with an MBA from Massey, did her final research paper on dark tourism and the reasons why people are drawn to places like the prison for entertainment.

"Why do people do it? For a place like this there's a historical component. Some people have an interest in things gothic. Sometimes it is because regular people don't get the opportunity to see inside places like this," she says.

But there is something about the dark side, the macabre or the spirit world that has wide appeal.

A walk through the prison, even in daylight, is enough to make even the most strong-willed person a little uneasy. The dark corridors open into cells that feature the old bunk bases displayed on the walls. Each is covered in graffiti left from the stream of inmates who whiled away their nights there. Gang insignias, tags, pictures and laments are all reminders of the former inhabitants.

Outside in the courtyard, a large, red rope hangs from the wall. A number of people were hanged there, and locals used to come and stand above the courtyard to witness the event. Four of those executed are buried on the grounds.

Each story told of a spirit, a ghost or an encounter becomes part of the tour.

"After they had stayed I would talk to backpackers who had experienced something the night before. I think that people want to hear these things," Waaka says. "They've seen this or heard that; footsteps, screams and orbs of light. Every time they do that you can incorporate that into the tour and it's more interesting for the people coming up."

"I myself don't believe in ghosts, but I definitely believe in energy. A place like this and all of the things that happened here, I

mean the walls have got to soak up some of that, but I don't believe in Casper, as such."

Many people do, however, and are drawn to the places where bad things happened.

"When I flew into San Francisco, the first thing I wanted to do was go to Alcatraz, and when we were travelling in Argentina I went to Ushuaia prison at the bottom of the world. From living and working in an old jail it's interesting for me to see these kinds of places. I also have an interest in justice, history, and the dark side of society."

As co-owner and manager of the business, Waaka is behind much of the expansion it has seen in the past few years.

"We've had seven years of full-on guided tours and tried a few different things. One is the night tour *Dead Hill*, which we're now working with local actors, so it's a bit more of a production. Our new business is [audiotours.com](http://audiotours.com) for which I am marketing the devices, translation and audio production service. We are currently working in New Zealand, the United States and Britain.

"But I'm looking for other work now. I've been in the family business for many years so feel I need to spread my wings."

She hopes finishing her MBA last year will give her the springboard she needs into a new career. But for a self-described creative person, the programme was an interesting choice, influenced by someone close to home.

"The day I started was the day my father finished his MBA. I began with one paper in economics and decided I could do more. I rang up (former MBA director) James Lockhart and he said, 'What are you doing this weekend? Come down and start!' It was a very fast decision, but it was absolutely the right decision. I feel like I've grown so much."

Not being one for downtime, it seems, she not only juggled studying with working at the prison, but also managed to find time to spend winters in Ohakune and a New Zealand summer snowboarding in the Northern Hemisphere.

"The course was great for that. I was able to study wherever I was because it was very flexible. I did classes in Auckland, Palmerston North, Wellington and Christchurch."

Now she is looking to apply her skills to a new challenge, but doesn't see herself as the typical MBA graduate, aiming for upper management.

"I'm interested in business development and I'm also looking at positions that involve writing. I don't see myself as a CEO; I want to keep a creative aspect to what I'm doing. The phase of a business that I'm interested in is the start-up, the conceptual aspect or marketing and networking." ■



# Meeting the challenge

Dawson Tamatea admits there were times during his extramural studies in which he questioned “the method behind the madness”. Now, having met his challenge, he is pushing his pupils to meet their own, as Gateway programme coordinator and Director of Māori Student Achievement at Palmerston North Boys’ High School. He talks to Kereama Beal.

Photographs: David Wiltshire



**D**awson Tamatea (Te Aitanga a Māhaki, Rongowhakaata, Ngāti Koroki, Ngāti Kahukura) began his studies at Massey in 1979 through the Palmerston North Teachers' College, gaining his Diploma in Teaching.

"It was while teaching at Monrad Intermediate, I learnt about study awards that, at the time, allowed you to study full-time while paid – but only secondary teachers received full salary," Tamatea says.

In 1986 he started teaching at Palmerston North Boys' High School, and began taking papers toward completing a bachelor degree via distance learning.

"My first taste of extramural study was really hard," Tamatea says. "Studying at a distance while you're working isn't easy. Anyone will tell you that. But the contact courses were really helpful. The good thing about them was being able to catch up with people who shared those same challenges."

In 2003, Tamatea took the challenge again and returned to extramural studies to undertake a Master of Education Administration, a seed planted during a barbecue with friends.

"Out of all of us at the barbecue that night, who had all trained together, only four were still in the education sector. The others had moved into different fields," he says.

"So what was our five-year plan? I worked out that if I took an extramural paper each year for four years, and gained a study award for full-time study in the fifth, I could up-skill within that period.

"The challenge is initially what drove me, but as I progressed I became even more passionate about education. I love teaching and I don't think you can separate the two."

Tamatea says that after more than 25 years of teaching, he needed a break. "That's where the study award really helped. I became a full-time student on salary and I was able to really focus on my education. I was also able to invest more time in the whānau.

"My youngest daughter was in year-six at school, and I was able to attend assemblies, watch her sport, and even spend time with her over three days at school camp – things you can't share when you're working day to day."

But one year was enough of a break and Tamatea says he was looking forward to returning to the classroom at Boys' High. He now coordinates the school's Gateway programme, supervising and supporting year-13 pupils undertaking learning and assessment in the workforce while still at school.

"I have mechanics, builders, computer technicians and plumbers who are out on work experience today," he says. "When they're in my class – I see them two periods a day – we're doing generic Gateway work," he says. "That involves planning, first-aid, safety – and on top of that, they're undertaking trade-specific work."

Tamatea has taught maths, English, physical education and health to year-12 level. He was head of the Māori department for 21 years and has coached/managed senior tennis, softball, basketball, rugby and kapa haka.

Under the role of Director of Maori Student Achievement, Tamatea is now part of a committee that works with strategies that involve the school, whānau and students on improving participation and achievement across the board.

"I'm currently running a homework centre, started this term, whereby pupils can come to my room Tuesday and Wednesday lunchtimes and Fridays after school for support with their work.



"Studying while working is demanding, let alone trying to find quality time for the whānau. You have to be mindful of your sacrifices, to be disciplined and well-organised to achieve." – Dawson Tamatea

"We've been doing a lot of things here for a number of years at Boys' High School but what we're doing now is formalising them," he says. "Statistics show that our Māori students are doing very well – which we knew – but now we have statistical data from the past five years to show that."

Tamatea says there are currently 269 Māori pupils on the roll.

"How do I know that? Because I personally spoke to 269 of them last term. A recent survey shows that our Māori pupils feel positive and valued.

"Our strategy acknowledges that successful outcomes for the young men of our school are more likely to occur when the students, whānau and school work collectively to achieve educational goals."

The road to that achievement isn't always easy, as Tamatea knows all too well.

"There were times throughout my studies when I questioned myself," he says. "Studying while working is demanding, let alone trying to find quality time for the whānau. You have to be mindful of your sacrifices, to be disciplined and well-organised to achieve."

Now, he works hard to ensure others are empowered to do the same. ■

# For all the people

Former extramural student president and University Council member Liz Hawes has had a long association with Massey, stretching from the woolshed to the boardroom. Her studies have seen her contribute to academic policy, distance learning development and student welfare at both a university and national level, and she is now working towards the completion of her PhD.

She talks to Kereama Beal.

**L**iz Hawes was working in shearing sheds when she was first inspired to study during the early 1970s. She was a shed hand, delighting in the hard physical work, but keeping her mind alert. She observed during this time that one critical element kept the woolshed humming, and that was teamwork.

"If one person wasn't pulling their weight, the whole shed crumpled into chaos," Hawes says. "And that's a lesson that has stayed with me, throughout my career. I have to say, beyond the wool shed, I never had to attend a team-building course to know the value of collaboration. I've always loved working as part of a team and empowering others to do the same."

Hawes soon found out about Massey and pursued a wool-classing diploma, practising her trade in woolsheds from Wairoa to Wairarapa.

Some years later, married, working and with three young children, she rediscovered Massey for a different reason – its extramural programme.

"I thought, 'What a fantastic concept! – that anybody can have access to university-level knowledge and learning without the need to be located on campus'.

"I found it very liberating and inspiring. Here, education was for the people of New Zealand, regardless of age, social class, family status, educational status or any other limitation."

With motherhood putting the brakes on the shearing gang lifestyle, Hawes engrossed herself in her BA. It was while studying special education, as an undergraduate, that a classroom teacher friend announced she was to be mainstreaming a young boy the following year, whose disability was cerebral palsy.

"My persuasive friend convinced me to become her teacher aide but there was much more to learn if we were to have a positive impact on our young student's learning. So I turned to Professor James Chapman, who agreed to supervise me through a special topic on cerebral palsy. The upshot was the publication of a case study on improving our pupils' communication skills and a pupil who now had mastery over his computer.

"These were heady days. James was outstanding in his advice and guidance and, as I learned more about how our student might best learn, the classroom teacher and I shared that knowledge and immediately applied it in the classroom. To observe the growth in this young boy's learning and watch the unleashing of his undoubted intellectual capability through this newfound communication channel was one of the great joys of my life.

Hawes graduated in 1988 with a BA in Education and Psychology.

In 1991 she took up a position as liaison advisor for the Extramural Students' Society and was able to use her knowledge and skills to benefit other extramural students.

"You can feel very isolated as an extramural student, as if you are the only one out there, cut loose from the university and without any sense of university life."

Holding an annual round of regional orientation meetings for extramural students, supporting a team of 40 regional student peer supporters, and facilitating study groups in the regions were three ways to help break down the isolation barrier. A quarterly newsletter dedicated to extramurals also helped.

"Supporting the EXMSS peer supporters in the regions was the key to developing a sense of learning community.

"These volunteers were experienced in extramural study and understood the importance of having a sense of belonging to the University, irrespective of their geographical location. They organised social events, facilitated second-hand textbook sales, provided guidance to students starting up study groups, put students in touch with each other and referred them on to University personnel as necessary."

In 1994 the society replaced its newsletter with a magazine. Hawes was now confronted with writing a communications strategy and business plan and editing a magazine.

"Well, I had no idea," she says. "So I enrolled in a Postgraduate Diploma in Business Administration, with a communications management endorsement."

The resultant magazine, *Off Campus*, became a focal point of communication between the society and its students, and a platform to highlight the representation, advocacy and general services the society provides.

"There was, and still is, a perception that services on offer to extramural students are provided by the University," Hawes says. "Most are not – and it's important that they're not. For example, the University could never successfully provide an independent voice for extramural students in the Council room or on any board or committee.

"Such a voice, to be truly representative, must be elected by the students, through their own independent structures and processes."

That independence has recently come under fire as a bill before parliament seeks to impose voluntary student membership on campuses across New Zealand. It signals the repeat of a battle that Hawes recalls from little more than a decade ago, when in 1999 voluntary student membership was the issue of the day.





“Students’ associations are a powerful political force in this country... It’s therefore not entirely surprising that some political factions would rather be rid of them.”

– Liz Hawes

Photograph: Mark Coote



"It's just political meddling," Hawes says. "The current arguments, as in 1999 and in 1992 before that, are that students shouldn't be forced to belong to an association. Well, they never were and they are not now."

"Legislation provides for students to make their own students' association membership voluntary if they wish. And at an individual level there are exemption clauses in the legislation through which a student can cease to be a member if they wish. Ironically, these private members' bills have always been promoted by politicians who advocate for less political interference."

Hawes vividly recalls the 1999 debate and ultimate referendum. It was during this time that she was elected president for the first time.

"I'd never considered taking a political leadership role. You might say I became president by accident."

But it was a critical time and Hawes was one of the few who fully understood the implications of voluntary membership for extramural students, so was encouraged to stand for the leadership position.

The National Party pushed for students' association membership to be made voluntary, while New Zealand First, in coalition with National, favoured a student referendum.

"You have to see the funny side," says Hawes looking back. "We were getting vomit-buckets of rhetoric from the bill's promoters including 'freedom for the individual', 'freedom of association', 'freedom of speech', but at the same time, they were opposed to giving the students the 'freedom to choose' the membership status of their own students' associations."

A referendum was held and most students' associations voted to keep their membership compulsory, including Massey's extramural students who voted "overwhelmingly" to keep membership compulsory.

"Students' associations are a powerful political force in this country and a threat to any political party wishing to impose unjust, unfair or plain stupid policies. It's therefore not entirely surprising that some political factions would rather be rid of them."

"I don't doubt that if a referendum were held again tomorrow, the result would be much the same. Students are not stupid."

Throughout her nine years as president, Hawes continued to articulate the extramural position at all levels of the University, including on the University Council. She lobbied for stronger extramural leadership within the University and to see established a coherent strategic approach for the extramural arm of the University. Her third lobby was to link fee increases to quality measures.

"With the exception of three years of government-imposed fee

freezes and one exceptional year of no fee increase at Massey, fees increased every year," she says. "Extramural students face unique challenges and policy decisions can impact differently on them. Council members would argue that without the fee increase there would be threats to quality. I argued that after years of fee increases we had no evidence of increased quality, and sought an undertaking from Council to monitor quality more closely."

Hawes oversaw the introduction of electronic services, including the introduction of the society's website and attendant online services. In terms of electronic services, the highlight for her was developing the first online student evaluation of courses tool in the country, called *Rate It*.

"*Rate It* allowed students to evaluate their papers and see what other students had to say about them. It's what on-campus

students do all the time, but extramural students just don't get those face-to-face opportunities to chat with others about papers."

A second highlight was establishing the society as a credible voice for distance students on external bodies such as the Learners' Advisory committee to the Tertiary Education Commission, the Tertiary E-learning reference group and a range of other working parties and reference groups.

After almost two decades, she was ready to move on, and the challenge of national tertiary representation beckoned. In 2008 she became co-president of the New Zealand Union of Students' Associations and again says she was simply fortunate to serve at a time of great achievement.

"Presidents long before me had fought hard to bring the issues of student debt to politicians and to the public and in 2008 our election campaign objective was to persuade government to introduce universal student allowances."

"We were stoked when Helen Clark announced that Labour would introduce universal student allowances,

just days ahead of the election," Hawes says. "It made all the lobbying and public awareness-raising so worthwhile."

She has since been working towards the completion of a PhD in political communication, looking at how effectively party websites were used during the 2002 and 2008 elections and what, if anything, changed within that period.

She hopes to complete it next month.

And there is no slowing down. She recently accepted a Wellington-based position within the education sector.

"I'm so looking forward to starting my new job," she says. "But Massey will remain an important influence in my life. Massey, for me, will always remain the university of educational opportunity for all New Zealanders." ■



### The Extramural Students' Society

- Established in 1963
- Current president: Ralph Springett
- Has representation on 14 committees and organisational groups within the University
- 25 volunteer representatives in 22 centres
- Four permanent and part-time staff
- Executive committee of nine
- Funded solely by \$40 student levy
- Publishes three editions of *Off Campus* per year, with circulation of about 18,000
- Has growing online community of 600 registered members
- Hosts approximately 10 major events throughout the year





Gareth Hopkins keeping wicket for the Black Caps – courtesy of Photosport

# BATTING ON TO A BBS

**W**hen he does not have a bat or a ball in his hand, cricketer Gareth Hopkins has a book.

The Black Caps' wicket keeper-batsman is studying for a Bachelor of Business Studies with a double major in finance and economics.

Hopkins, who hit a career best 45 from 51 balls in the one-day internationals against Australia this year, is currently with the Black Caps squad for the *Twenty20* World Cup in the West Indies.

He is one of the five players each year, including Jacob Oram and Michael Papps, who are studying at Massey through scholarships offered by the College of Business in partnership with the New Zealand Cricket Players' Association.

The 33-year-old, who captains Auckland, decided to return to study six years ago and says the distance learning set-up suits him.

"Extramural is perfect," says Hopkins. "I can play cricket full-time and chip away at the degree."

He does four papers a year but never studies from the stands.

"I don't take books to matches," he says. "When we are touring, the guys are relaxing and I'm in my room catching up with study. But I do keep the two things separate."

There could have been a clash when he was scheduled to sit an exam on the day of his test debut against England at Trent Bridge. But the Black Caps' sports psychologist, Gary Hermanson, was invigilating and arranged for him to sit it the next day.

"I've sat exams in a few countries now," he says. "Last year I was playing club cricket in Holland so I sat an exam in the British Consulate in Amsterdam."

"The online learning environment, through *Stream*, has also

been pretty good and other students are helpful in the online forums."

Aidan Hobson, career and personal development manager for the New Zealand Cricket Players' Association, says the partnership with Massey helps players to take positive steps to a future outside cricket.

"Massey manages the project well and offers the flexible learning environment that is so important to people who do have full-time jobs but are keen to study and improve their skills."

During Hopkins' school days at Taupo-nui-a-Tia College, he was into science, maths and, of course, sport. He left school and began a career as a professional cricketer, but always hoped that he would study for a degree.

Since he began his first paper in 2004, he has married, bought a house, played for the Black Caps and his wife recently had a baby. He started his latest paper – in advanced microeconomics – when his son, George, was just a few weeks old.

"I always wanted to do something at university but at 18 I didn't know what I wanted to do. My wife, Bernadette, has done a degree and is incredibly supportive. Coming to study a bit later in life, I probably have more motivation and drive and I want a career after cricket."

With six papers left to complete, the finishing line and a capping ceremony in sight, what will he do with his qualification?

"I'd like to own a successful business," Hopkins says. "But what area, well that's the \$64 million question." ■ – Kathryn Farrow

# Multi-talented role model

When he is not researching within the University's Māori Business Research Centre, graduate and academic Rāwiri Tinirau is preparing for kapa haka competitions, speaking at international conferences, judging speech contests and running galas. Lana Simmons-Donaldson learns about the man who has been described by his peers as one of Māoridom's future leaders.

Photograph: Bernadette Peters



**R**āwiri Tinirau is one of those people who make a good first impression.

Retired Wainuiomata College Māori language teacher Hine Taitoko remembers being at the college for only two weeks when she was asked to nominate students for the Manu Kōrero regional Māori speech competitions. “I had only taught Rāwiri for a couple of classes, and asked him if he’d enter – he went on to place as a finalist in the national competitions for the next three years.

“He was a brilliant student, and gave 100 per cent to whatever he was doing. By fifth form (year-11) he had already passed School Certificate science and mathematics, and bursary Māori.

“He took over the kapa haka, and his parents were very supportive, which was important for a place like Wainuiomata.”

Another mentor, Puti Mackey, who received a Queen’s Service Medal in 2008 in recognition of more than 50 years’ involvement in Māori performing arts and Māori education, saw his potential while he was at Wainuiomata Intermediate, selecting him as a member of a team that performed at the New Zealand pavilion at the World Expo in Spain in 1992. “I have watched him grow up, and always thought he had a lot of potential as a future leader for Māori.”

Tinirau has connections to 16 iwi from the North and South islands, including: Te Āti Haunui-ā-Pāpārangi, Ngāti Rangī, Ngāti Tūwharetoa, Ngāti Porou, Rongowhakaata, Ngā Rauru, Ngāti Ruanui, Ngāti Apa, Ngāti Kahungunu, Ngāi Tūhoe, Te Whakatōhea, Te Whānau ā Apanui, Te Arawa, Rangitāne, Ngāi Tahu and Kāti Māmoe.

When he and his family decided to return to Whanganui where his mother’s roots are, Taitoko remembers many of the teachers being quite sad about it. “I said to them, he can learn English anywhere, he can only learn his Whanganui mita [dialect] from his own people.”

While at Wanganui Collegiate he was instrumental in establishing the school’s kapa haka group and in encouraging students to compete in Manu Kōrero. He was the first individual to win the E Tipu e Rea trophy for competing in both the English and Māori language sections at the national competition in Invercargill, 1997.

Since then Tinirau has organised numerous regional, and three national Manu Kōrero competitions. He has also performed, composed, tutored and judged kapa haka at local, regional and national levels.

“For such a young person, he has already made a significant contribution to Māoridom,” Mackey says. “He can fit in with the pakeke [elders] and the youth.”

Tinirau is the fourth generation of his family to study at Massey. His great-grandfather, a World War II veteran who served with the Māori Battalion, completed a herd-testing course at the then Massey Agricultural College.

Both his parents and other family members have also either worked or studied at the University. Tinirau began his own studies

through distance learning in 1996 while still a student at Wanganui Collegiate and continued studying extramurally while completing a gap year in Britain.

Massey School of Management Professor Tony Vitalis has known and worked with Tinirau for seven years, and was one of his postgraduate and now PhD supervisors. He describes Tinirau as an “outstanding role model for Māori”, and “one of the nicest people to work with, both as an academic and as a human being”.

Five years ago, at the age of 25, Tinirau got a call from his great-granduncle to take on the role of treasurer for the Rānana Māori Committee. With a degree in accountancy he had not used since he acquired it, he decided to take the job.



Rāwiri Tinirau, Photograph: Vince Heperi

At the time he already had double undergraduate degrees in accountancy and Māori studies, an honours degree in Māori studies (with first class honours), and a Postgraduate Diploma in Business Administration with distinction in management, and was lecturing in project management at the Manawatu campus. He is the youngest committee member by at least four decades, and was recently elected as a trustee for Ruaka Marae, which includes custodianship over several Rānana and surrounding land blocks along the Whanganui River.

Although he isn’t competing in this year’s regional competitions, kapa haka is still a big part of his life. For six weeks leading up to Easter, Tinirau was involved as a tutor of the “midgets”, juniors and seniors in the Manawatu based *Te Waiora* team which took out the overall prize at the Hui Aranga – an

annual Māori Catholic event involving kapa haka, religious debate, sports and choral singing – this year held at Te Aute College in Hawke’s Bay.

Two weeks later he was involved in running a gala at Ruaka Marae to raise funds for a new kitchen, and is currently in Denver presenting a paper at the American Educational Research Association international conference entitled *Te Mita ō Whanganui* about the Whanganui dialect. Last year he presented a paper on Whanganui customs and practices, and was invited back. When he returns he will be a judge at the regional Manu Kōrero competitions in Taranaki and Manawatu.

His connections have made finding case studies for his PhD thesis on tikanga Māori in business relatively easy. His fieldwork has taken him to many places, including a mutton birding business in Foveaux Strait, a land trust in Taranaki, a tourism merchandising business – the Hoover Dam Store in Las Vegas, and an agri-tourism business in Slovakia.

Te Au Rangahau (the University’s Māori Business Research Centre) director Dr Annemarie Gillies says she has no doubt Tinirau is going to be one of Māoridom’s strongest future leaders. “He brings enthusiasm, energy and professionalism to everything he does,” she says. “He is highly respected by his colleagues.” ■

# Te Aute College's legacy of leadership

Former Te Aute College dux James Graham will return to his alma mater after he graduates this month to present the school with a copy of his doctoral research thesis about the contribution Te Aute has made to Māori advancement for more than 150 years. He talks to Lana Simmons-Donaldson.

In his doctoral thesis James Graham examined the contribution to Māori advancement of Te Aute College, a Māori boarding school established in 1854 in Pukehou, south of Hastings. The concept of whakapapa was used to reveal the layers of tradition, history, connections, narratives, achievements and successes that have enabled the realisation of Māori potential and the subsequent advancement of Māoridom.

Graham's connection with the school is personal and deep. As well as being a former pupil (1985-1989), his iwi, Ngāi Te Whatuiāpiti, donated half of the original 8000ha for the endowment, land that continues to provide some educational funding to the school. The remaining endowment land is now the subject of Treaty of Waitangi claims in which Graham is also involved.

Graham and his wife and two sons have recently built a house in Pukehou, where he is the chair of the Pukehou Marae committee. Generations of his family have been involved with the community and school as pupils and staff. He says Te Whatuiāpiti kawa or marae protocols continue to have a special place in the school.

The purpose of the school was to ensure the sons of the local hapū (Ngāi Te Whatuiāpiti, Ngāi Te Rangikoianake, Ngāi Tapuhara, Ngāi Te Rangitekahutia, Ngāi Tārāhui, Ngāi Toroiwaho, Ngāti Kere) had the same level of education as their pākehā counterparts. As a result, "Te Aute has cultivated a culture of contribution in its student body and imbued in its students a strong ethos of service, obligation and contribution across multiple dimensions and disciplines captured succinctly in the school motto, 'Whakatangata kia kaha, Quit ye like men, be strong'," he says.

The establishment of the college was a watershed. "Up until the mid-1800s Māori leaders were born into their role." By the end of that century, through colonisation, the tradition of inherited leadership had changed significantly. "Te Aute as an institution helped to cultivate modern-day leaders to lead Māori communities into the future," Graham says.

History speaks for itself through the achievements of successive generations of former pupils, who individually and collectively have made their mark on shaping New Zealand. "Sir Apirana Ngata was a prominent politician and the first Māori university graduate and lawyer. He along with Te Rangi Hiroa (Sir Peter Buck, the first

Māori medical doctor) and other contemporaries established the Young Māori Party and were instrumental in leading Māori into the 20th century."

That wave of scholars was followed by others who went on to make a significant contribution to the military effort as soldiers in the Pioneer Māori Battalion of World War I, and in the Māori Battalion during World War II. For example, Te Moana nui-a-Kiwa Ngarimu was posthumously awarded a Victoria Cross in 1943, and Sir Charles Bennett was awarded a Distinguished Service Order that year and went on to become the second Māori to study at Oxford,

the high commissioner to Malaya and the first Māori Labour Party president in the 1970s. "These men and their peers exemplified Māori leadership qualities to the country and to the world."

Modern-day leaders were recently inducted into a Te Aute College Leaders 1st XV and include the late Sir Howard Morrison, retired High Court judge Sir Edward Durie, Massey's Deputy Vice-Chancellor and Assistant Vice-Chancellor (Māori and Pasifika) Professor Sir Mason Durie, Māori Affairs Minister Pita Sharples,

Anglican Bishop William Turei and contemporary artist Sandy Adsett.

One of Graham's contemporaries, Bentham Ohia (1985-1989), is now chief executive at Te Wānanga o Aotearoa, one of New Zealand's largest tertiary education providers operating from more than 80 campuses.

Ohia says his time at the school was one of the best experiences of his life and contributed to a significant change in direction. "It was a defining moment for me and my whānau; my schooling up until then wasn't very flash." He admits to being a challenge for his parents – not something he is proud of. "Te Aute instilled discipline, pride, solidarity and respect." Before Te Aute, Ohia attended Aranui High School in Christchurch and Wellington High School. "I didn't do too well at either school, so Te Aute was seen by my parents as 'the last chance'."

When asked if there were any particular principles he learnt at Te Aute he says it is the approach. "It's the principle I have applied to everything I have been engaged with since – 'If it's worth doing, it's worth doing well'."

Not everyone who has been to the school has become a national







icon but they may have made their mark and left their legacy at their local community level. The college has also had to confront negative issues and declining student numbers, as have other Māori boarding schools.

One of the findings to come out of Graham's thesis centres on the school and the need for it to specialise. "The school is unique in that it has a tradition and a lineage of contribution to Māori advancement," he says. "It may well need to adapt and specialise its curriculum offerings towards Māori development from a kaupapa Māori perspective.

"Not like the Māori immersion schools or other secondary

schools already in place, but providing an innovative curriculum not offered elsewhere but that perhaps allows students to specialise in agriculture, the sciences, music, the arts, sport and of course, te reo Māori me ōna tikanga.

"The traditions of Ngāi Te Whatuiapiti, Anglican and te ao Māori [Māori world-view] have all shaped what it means to be a Te Aute boy," he says. "Each generation has added to the heritage of the school leaving a legacy for emerging generations, built around a Te Aute culture of contribution and an ethos of service connecting the past, present and future." ■

Photographs: David Wiltshire

# ART AND SCIENCE

## MEET IN LIGHTS

**T**he combination of psychology, aesthetics, mathematics and physics is what makes the study of lighting so interesting, says Roy Speed, director of the University's lighting programme.

Speed says that while today's specialised lighting engineers might be working with the latest LED (light-emitting diode) technology, they must still take into account the primitive effects of amber-orange glow from elemental flames on human psychology if they want, for example, to create a warm, comforting, homely ambience with artificial lighting.

"Lighting is where art and science meet. The science aspect deals with the physics of light, the art is the human aspect and takes into account the psychological effects of lighting. That's what makes it challenging – it's subjective.

"With a magic mix of science and art you can alter the apparent dimensions, as well as the ambience, of a room by the way you angle lights and place lamps, or attract customers into a store with alluring lighting effects," he says.

Speed teaches a two-year part-time lighting programme through distance learning from the School of Engineering and Advanced Technology at the Albany campus. Lighting professionals attend a series of block courses and seminars in a purpose-built laboratory and darkroom.

The programme is the only one of its kind in New Zealand, and is geared to the needs of the Illuminating Engineering Society of Australia and New Zealand to which it is affiliated.

The society's members include engineers, architects, educators, students, contractors, manufacturers and designers. Topics on the lighting programme include photometry, vision and measurement, and lighting design (interior and exterior) with an emphasis on sustainability and energy saving.

"The ubiquitous nature of modern lighting means we have the ability to light up our environments," Speed says. "So much depends on lighting – from making streets, stadiums, carparks and vehicles safe to accentuating and enhancing the beauty of buildings and trees in both natural and urban environments. Lighting designers can transform the ambience of indoor spaces – homes, restaurants, art galleries, offices, factories, classrooms and department stores – to create a desired effect. Architects do the same with outdoor spaces and structures. Others in the industry apply lighting knowledge to theatre and film."

Speed says the drive for sustainability means the lighting industry is in the midst of its most exciting phase in years. New developments in low-energy LEDs, used as indicator lights in many devices, are paving the way for more energy-efficient lighting that could eventually replace the traditional incandescent or



Roy Speed

fluorescent lighting.

Innovative student researchers at Massey are already working on several energy-saving projects.

Lighting and energy PhD student Noor Dina Md Amin is investigating energy efficiency in schools and tertiary institutions by looking at how best to incorporate natural light into classrooms and lecture theatres, and Master of Technology student Bryan King is exploring energy-saving forms of street lighting.

Speed, a board member of the Illuminating Engineering Society from 2005 to 2009 and its president from 2007 to 2009, is pleased at industry recognition of the programme, which has just been granted \$230,000 from the Electricity Commission to develop course content and buy lighting equipment for a laboratory/darkroom for student experimental research into the science of lighting.

"The grant will help us in developing lighting professionals who will be at the forefront of initiatives to establish energy-efficient lighting practices in New Zealand," he says.

The programme's first crop of 24 students – professionals from different backgrounds in lighting, design, architecture and engineering – graduated during the Albany Campus' ceremonies last month with Graduate Certificates in Science and Technology (Lighting). ■ – Jennifer Little



# WHY HOW NOW BROWN COW IS 'CHOICE' FOR BUSINESS

If she sells sea shells on the sea shore, then an innovative voice coaching programme based at the University's e-centre might be able to help her sell more.

SpeechSchool.TV was launched in February this year to help people speak more clearly and gain a competitive edge when it comes to business.

The lessons are online and presented by company founder Simon Angelo and television presenter Tami Smith, who record the programmes from two studio locations in Auckland.

Angelo noticed that people were being held back in their careers by their accents and established a web-based learning process that includes teaching Received Pronunciation.

"The way you speak is one of the most important things about you. Accents are important but so is speech clarity," he says.

"Half of the people I have seen have been new migrants and international students wanting to neutralise their accents.

"These talented people possess good English but struggle with communicating in 'local speak'.

"Prospective employers worry they won't be able to establish rapport with customers and colleagues and the impact of these reactions on people's confidence can be quite damaging."

Angelo, who has worked in advertising and took voice coaching lessons from the age of five, approached the e-centre business incubator on the University's Albany campus with his idea last year and within a few months it was going live.

"Discovering the e-centre was like a singer meeting the von Trapp family," he says. "It's a perfect fit."

Steve Corbett, chief executive of the e-centre, says he saw the potential for SpeechSchool.TV as a tool to increase productivity in business.

"Employees who can communicate more effectively are more productive," he says. "The product has significant global potential."

He also says students who take the lessons will gain more confidence when they interact, leading to a better all-round experience at university.

SpeechSchool.TV teaches Received Pronunciation, an American-based accent programme, and a Master Communicator programme that helps users to establish themselves as confident public speakers and reduce mumbling and stuttering.

"I've not been at the e-centre long, but it has helped me tap into networks I'd struggle to reach on my own," Angelo says.

He has enjoyed success in coming third in the Telecommunications Industry Group's Launch Pad 2010 competition for the best new start-up business idea.

Now SpeechSchool.TV has entered the Technium Challenge, which could see it promoted in Europe to an audience of hundreds of millions of people.



Simon Angelo is using the expertise of Massey University PhD student Vai Yoganathan to enhance his SpeechSchool.TV online voice coaching programme.

Angelo, who grew up in Taranaki and went to New Plymouth Boys' High School, says the results of his work can be "life changing".

"Accents are important, but you can learn Received Pronunciation and still keep your identity," Angelo says. "Star Trek actor and Yorkshireman Patrick Stewart is a perfect example as he performs with the Royal Shakespeare Company."

He is now using the expertise from the e-centre's Postgraduate Garage – a collective of bright doctoral students who use their talent to help products reach commercial success.

He has teamed up with engineering PhD student Vai Yoganathan, whose research is into speech enhancement in noisy environments.

Together they are looking to see if there is a way to automate the assessment of audio files, which would speed up the process as the business grows towards its target of 20,000 subscribers within five years.

Yoganathan, who did her undergraduate and master's degrees in the School of Engineering and Advanced Technology, says she is excited about the project.

"It is rewarding to see how my knowledge can be applied to commercial products in the real world," she says. ■

– Kathryn Farrow

# UNLOCKING THE VALUE OF ARTS INVESTMENT

Sir Christopher Frayling is evangelical about the importance of design – and he does not mind whom he preaches to. This time, it is Paul Mulrooney.

Photograph: Mark Coote



**V**isiting New Zealand in March at the invitation of the University's College of Creative Arts Pro Vice-Chancellor Professor Sally Morgan, Sir Christopher Frayling, a former rector of the Royal College of Art in London, offers a global design perspective.

When British Prime Minister Gordon Brown visited the Royal College of Art's annual exhibition several years ago, Frayling, who was also a professor of cultural history, was insistent that the then Chancellor of the Exchequer pay proper attention to a swag of college catalogues and reports before leaving. Frayling recalls Brown saying: "Christopher you're trying to distract me from reading about the economy", and his response: "Gordon, this is the economy". He says he won the point then and repeated the message in talks with New Zealand government officials and others.

Frayling was chairman of Britain's largest arts funding body, the Arts Council of England, until last year. He is also a former chairman of the British Design Council and governor of the British Film Institute.

He has published 17 books on contemporary art, design, film and the history of ideas, and was knighted for services to art and design education in 2000. His role as head of the Royal College of Art from 2006-2009 saw him lead the world's only wholly postgraduate university of art and design.

Frayling is optimistic about the role that creative research will play in future. When he was still at the Royal College of Art he set up the Helen Hamlyn Centre to provide a focus for people-centred design and innovation, with a special research focus on design for inclusive design, patient safety and workplace design. Conscious of the fact that in another decade half of Britain's population will be aged over 50, the unit addresses the design issues that such a statistic creates.

"The post-mortgage, post-children generation has, unlike people in their 20s, all the money, so business had better get used to the idea that the customer is maturing." It is a situation familiar to all Western societies, with an increasingly older demographic who grew up in the consumer societies of the 1950s, '60s and '70s and are used to shopping, he says.

"We treated that as a design issue. We looked at graphic design, posters and products in terms of an ageing population." Control of the exercise "morphed" into a separate research unit, which looked at ageing and design, medicine and design, crime and design and other aspects of social impacts of design.

At present work is being carried out on designing the ambulance of the future for Britain's National Health Service. "That's my kind of design research. The relationship between art and design and education and industry is no longer serving industry, it's stimulating it."

Such a scenario can also be applied in New Zealand. Frayling uses a catchphrase, which has almost become a mantra to him, "think global, act local", something he says New Zealand is already doing. "If you do local well enough, global will like it."

Examples include *The Lord of the Rings* film trilogy, innovations in what he calls electronic and visualising industries, and locally produced novels such as the Booker Prize short-listed *Mr Pip*.

"All sorts of other things" are being unlocked through increased investment in the arts. "It gives them a whole new value as a new focus of national morale." He is adamant that governments should resist the urge to cut that investment, even in recessions.

**"The post-mortgage, post-children generation has, unlike people in their 20s, all the money, so business had better get used to the idea that the customer is maturing." – Sir Christopher Frayling**

"No-one's going to have an instant industrial revolution, but what they might have is a spurt of creativity. It's not a matter of giving people what they don't want; they're desperate for stimulation, so enter art and design."

Morgan says Frayling's deep passion for creativity was one of the reasons she invited him to New Zealand to "put him in front of people who are important and talk about the importance of creativity to the 21st century economy".

Among others, he met with Arts Minister Chris Finlayson and Creative New Zealand chief executive Stephen Wainwright.

He says they were "very, very receptive to these hard arguments about the creative industries and the contribution to the economy and in particular their relationship between the Government spending on the creative industries and the profit-making sector".

"Graduates of art and design, whatever they choose to do, whatever walk of life they go into, will adopt a creative, flexible and nimble designerly approach and that's great; that's what we need in a modern society." ■

"You put social research alongside studio designers, get all the demographers looking at the population statistics about getting old, and you then feed those into the design studios and the punch line is products."

Examples he cites include a germ-free hospital trolley for dispensing drugs and other hygiene issues resolved through design solutions.



Robbie Wilson, Hayden Paul and Ilana Gerber with Dr Wayne Patrick (second from left) discuss the results of their DNA ligase experiments.

# Engineering enzymes

Dr Wayne Patrick is the first university-based academic to be awarded Young Biotechnologist of the Year. He talks to Jennifer Little.

**W**hen Dr Wayne Patrick was named Young Biotechnologist of the Year in March, he was mightily pleased for a number of reasons.

Sure, the recognition and accolade for the work carried out in his lab at the Institute of Natural Sciences on the Albany campus, to engineer new and improved versions of the DNA “pasting” enzyme, ligase, were welcome on a personal level. His “obsession” with improving its function could have far-reaching implications for next-generation DNA sequencing technologies and the speedier development, for example, of molecular tools that break down harmful chemicals used in farming and horticulture.

But he was especially chuffed to learn he is the first university-based academic to win the award, reflecting growing recognition by the biotechnology community that fundamental scientific research is important in advancing new technologies.

Added to this was the pride the biochemistry senior lecturer felt in the cadre of talented undergraduate students, or “Team Ligase” as he fondly calls them, who played their part in winning the award. The white-coated squad of young scientists consisted of Robbie Wilson, Ankita Patel, Hayden Paul and Ilana Gerber.

Supervised by Patrick, the team fused DNA-binding proteins to the ligase enzyme, then tested the modified molecules for an improved ability to join DNA strands together.

“The team have now made and tested 13 prototypes, several of

which out perform their unmodified counterparts,” he says. The results of their research are being scrutinised by two American biomedical, or “life science”, companies, with the prospect of a patent and full-scale commercial development of this core technology that underpins all of molecular biology.

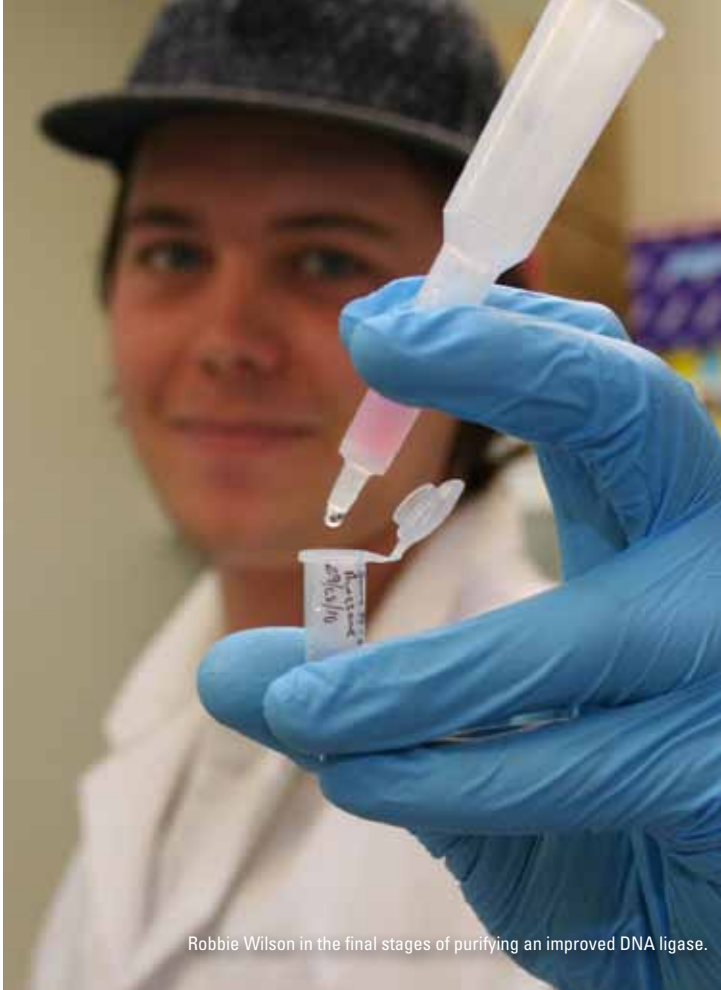
Wilson, 22, graduated with a first class honours degree in April before taking up a doctoral scholarship at the Australian National University in Canberra. The others have all graduated with Massey Bachelor of Science degrees, with Patel and Paul now doing postgraduate studies at the University of Auckland, while Gerber is teacher training at the Auckland University of Technology.

In its current commercially available form, DNA ligase is expensive and unreliable, Patrick says. “It was discovered in the 1960s and its DNA-joining activity is indispensable for modern recombinant DNA technology, but no-one’s ever tried to make it better.

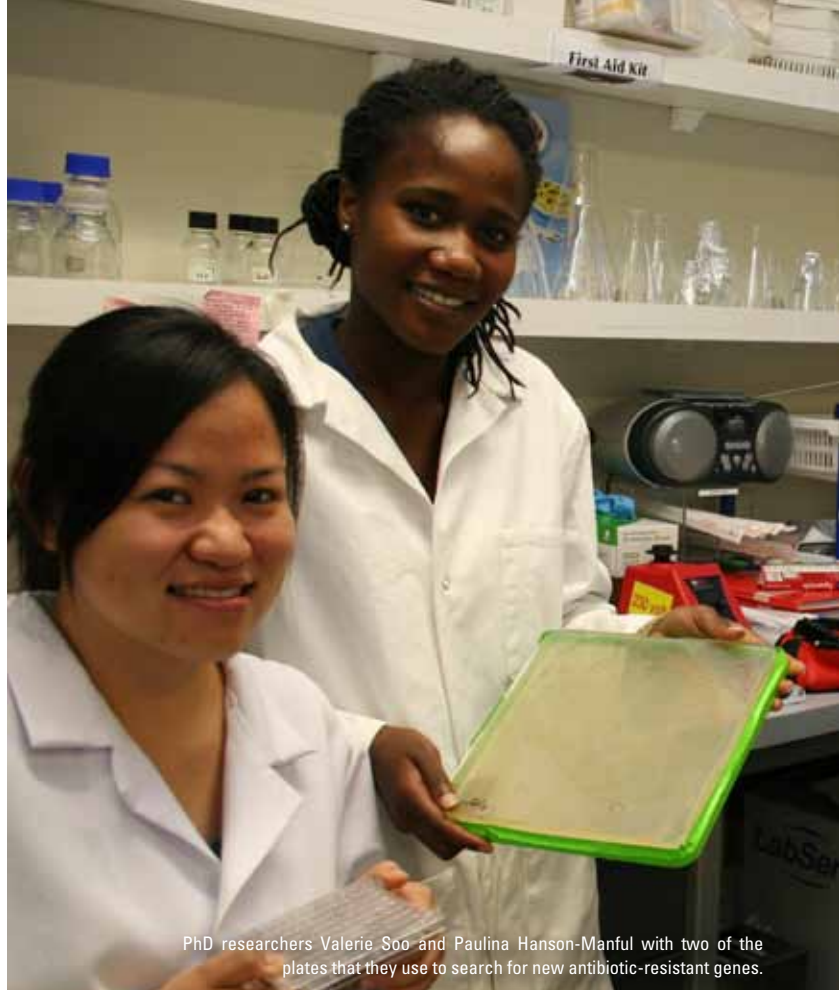
“Without ligase’s ability to paste together genes in a test tube, diabetics would still be using insulin from pigs and our human growth hormone would still be extracted from cadavers. In addition, whole new therapeutic approaches – like monoclonal antibodies (Herceptin, Humira, etc) – would never have been developed.”

Patrick, who was awarded first-class honours in biochemistry at the University of Otago before completing a PhD in biochemistry at the University of Cambridge, hopes that his award signals a





Robbie Wilson in the final stages of purifying an improved DNA ligase.



PhD researchers Valerie Soo and Paulina Hanson-Manful with two of the plates that they use to search for new antibiotic-resistant genes.

change of attitude in New Zealand regarding the relationship between fundamental and applied research.

“The research in my lab group addresses fundamental questions about the evolution of enzyme structure and function, and we use that fundamental understanding to help us engineer biomolecules with new or improved functions,” he says. “The award is an acknowledgement that biotechnological innovation can come from fundamental research, and I am excited that we here in New Zealand recognise that fact.”

The award, from NZBIO and supported by the Ministry of Research, Science and Technology, is presented to a scientist under the age of 40 whose work demonstrates the potential for future leadership in biotechnology. The judging committee said Patrick, aged 32, stood out as a candidate for the award because of his world-class research and development in the field of DNA ligase enzymes.

“More than anything, the NZBIO Young Biotechnologist of Year award is about potential for the future. I hope that my own best work is still to come; but thanks to my students, I am certain that the future of New Zealand biotechnology is bright,” he said at the awards dinner. Part of his prize includes participation in a New Zealand delegation to the 2010 Bio International Convention, in Chicago, Illinois, this month.

Patrick, who joined Massey in October 2007 after four years of post-doctoral research at Emory University in Atlanta, one of

the world’s leading research universities, says he strongly believes in fostering a spirit of cooperative inquiry and collegiality in his students. Cheerful comradeship underpins serious scientific work by the current crop of international PhD researchers Valerie Soo, Malaysia, Mack Saraswat, India, Paulina Hanson-Manful, Ghana via Belgium and Matteo Ferla, Italy and Britain at the Patrick Lab, or P-Lab as they jokingly refer to it.

Their studies revolve around different aspects of the molecular processes that underlie adaptive evolution, such as the “multi-tasking” abilities of proteins seen in the bacterium, *Escherichia coli*, and investigating the evolution of antibiotic resistance.

“Contrary to the traditional ‘one enzyme, one substrate’ view of enzyme specificity, our results suggest that many proteins (and perhaps all) possess secondary activities that become physiologically relevant, given an appropriate evolutionary pressure,” Patrick says.

Making a positive contribution to society by transferring the results of fundamental research – some of it funded by two Marsden research grants totalling \$1.3 million in the past two years – in the form of improved biomolecules is his driving force, he says.

“In the Patrick Lab, we borrow tools from functional genomics, directed evolution, microbiology and enzymology to address a fundamental question in molecular evolution: “Where do new enzymes and metabolic pathways come from?” Grappling with this question gives us insights into problems affecting the health of humans, and the health of the New Zealand environment.” ■



Professor Tim Bentley, Dr Bevan Catley and Dr Dianne Gardner. Photograph: Doug Cole

# 'SORRY CHEF, BUT YOU'RE A BULLY'

**T**elevision programmes featuring restaurant staff being abused, sworn at and reduced to tears could be closer to reality than audiences suspected.

New research on workplace bullying suggests that nearly one in five workers in the New Zealand hospitality sector, which includes hotels and restaurants, has suffered from some form of workplace bullying.

Researchers identified the kitchen as a literal hot-spot for overbearing and belittling behaviour, and say it has become “normalised” as an accepted part of the hospitality culture.

Study leader Professor Tim Bentley, associate head of the University’s School of Management in the College of Business at Albany, says the findings showed stress and bullying are at high levels when compared internationally.

“The magnitude is higher than expected,” Bentley says. “Bullying is happening and it is not being addressed. It has long been accepted that this is the way of working – if you cannot stand the heat, get out of the kitchen. But once the pressure is off they will all go for a drink together and socialise after work.”

And it is not just cooks, waiters and bar staff coping it at work. Employees in three other sectors – health, education and travel – have similar rates of bullying to hospitality workers.

The researchers had already identified those sectors of the workforce as at higher risk of bullying and, funded by the

Department of Labour and the Health Research Council, they surveyed 1728 workers, including doctors, nurses, teachers and academics as well as hotel and restaurant staff.

Eighteen per cent reported they had been victims of bullying at work, while 75 per cent had suffered from stress. Bentley says nine times out of 10 the manager is the bully and bad leadership is the cause. “There needs to be a zero-tolerance policy towards bullying and this requires a cultural change,” he says. “If we see someone driving unsafely, we would challenge that, but people do not stand up and address bullying behaviour. We need to be confident enough to challenge people if we see this happening and strategies need to be identified to prevent it in the workplace.”

In health and education, ineffective leadership was identified as one of the main factors leading to increased stress and bullying. The study found that employers in all four sectors had limited understanding of the workplace bullying problem and how to address it. Reporting structures were not effective, with bullying included as part of wider harassment or violence initiatives.

Dr Bevan Catley and Dr Dianne Gardner from Massey University were part of the multidisciplinary team that conducted the research alongside Professor Michael O’Driscoll (University of Waikato), Dr Helena Cooper-Thomas (University of Auckland) and Dr Linda Trenberth (Birbeck, London). ■ – Kathryn Farrow





Donald Sabanal receives the Craig Merryweather Memorial Scholarship award from David Merryweather.

## Sky's the limit for flying father of three

**T**he whirr of a helicopter has sparked an adventure that led a father of three to pursue his ambition to become a pilot.

Donald Sabanal found a way to study a degree in aviation despite having a young family and living 700 kilometres from the Manawatu campus.

The 25-year-old upped sticks from his job at Harvey Norman and his home in Whangarei and took his partner and children with him to pursue his dream of becoming a pilot at Massey University's School of Aviation.

Sabanal says he was out walking with his partner, Arlene, and their two children one day when he saw a helicopter coming in to land.

"I told her, did you ever know I wanted to be a pilot," says the former Whangarei Boys' High School pupil. "She said to just go for it and it all started from there."

He had left school with a National Certificate of Educational Achievement level 1 and was working as a computer technician, but enrolled with the local pilot training school to get his private pilot's licence before he applied for Massey's Bachelor of Aviation degree.

"The selection panel went really well; I was offered a place so we had a busy two days trying to find a rental property in Palmerston North."

The couple moved to Manawatu in 2006 with their son Matai, who was three, and one-year-old daughter Melina.

Sabanal says studying with a family was a challenge.

"I would do my flying in the day, then come home help out with the kids and study until about midnight. Once, I remember staying up until 6am to get my work finished," he says.

A year into his studies, he faced two new challenges – his eldest son was diagnosed with autism and a new baby, Carlos, arrived.

"It was hard, especially for Arlene, because our family wasn't close by," he says. "But throughout everything she has been wonderful and supported me in my studies. I couldn't ask for any more."

At the Wings Ceremony last year, he secured his commercial



Donald and Arlene Sabanal with their children Carlos, Matai and Melina.

pilot's licence and was awarded the Craig Merryweather Memorial Scholarship. This award, in honour of a Massey business studies student who was murdered while hitchhiking, is given to an aviation student who has demonstrated the greatest application and endeavour to succeed.

"I was stoked," Sabanal says. "It was nice to see that all the hard work and support from my family had paid off."

He is hugely enthusiastic about flying and hopes, in the longer term, to become an international airline pilot.

"It's just brilliant being up there, it's hard to explain but it's an amazing experience. I guess you just feel free. My eldest son has been on quite a few flights with me now and he loves the sensations."

He is currently back in Whangarei, keeping up his flying hours with a company called Skydive Ballistic Blondes, working at Harvey Norman to earn some money and taking six months off study before starting the papers to finish his degree.

Sabanal's family is immensely proud and amazed at what the couple has achieved. The career path he has followed also led to a revelation.

"I've not met my biological father but when I told my mum I was going to train to be a pilot she let me know my father was a pilot – so it must be in the gene pool," he says. ■ – Kathryn Farrow

# Variable rate irrigation

Traditionally, centre-pivot irrigators have been a somewhat blunt instrument – delivering a uniform amount of water to the land whether it needs it or not. This has led to losses in terms of both production – crops cannot grow in a bog – and unnecessary water loss. Now, a group of current and former Massey students is changing that.



Dr Carolyn Hedley and Stuart Bradbury

Photograph: David Wiltshire





**R**esearch by a Massey PhD graduate has helped a Manawatu company, Precision Irrigation, launch its variable rate irrigation system, which will provide farmers with the ability to target their water use precisely.

Part of the system was devised by Dr Carolyn Hedley at the Centre for Precision Agriculture in the Institute of Natural Resources.

Her research coincided with development work being carried out by two former Massey graduates, Stuart Bradbury and George Ricketts. Their company, Precision Irrigation, has developed the system that can deliver variable applications of water under a centre-pivot irrigator.

The system incorporates more sophisticated control of the irrigator through a simple-to-use interface that can utilise the scientific knowledge created through the PhD research.

Water application is matched to the exact requirements of the soil. The system creates a detailed map of the soil that indicates the soil's ability to absorb and hold water for plant use.

These maps often show that the soil is variable so uniform application could be wasteful in many areas, while being insufficient in others.

Hedley says that the soil's available water holding capacity is derived from an electro-magnetic surveying method.

"An electro-magnetic sensor with accurate GPS is used to map soil electrical conductivity, which quantifies soil variability on a basis of texture and moisture differences," Hedley says. "These differences are then investigated by field sampling, and the available water-holding capacity of each zone is measured."

"The research suggests that if irrigation is scheduled specifically to the trigger point of individual zones there are likely to be up to

about 20 per cent water savings, depending on how variable the soils are."

Centre director Associate Professor Ian Yule says centre pivots have become the main method of irrigation because they are much easier to manage than other systems, but they are terribly inflexible.

"You are very limited if you want to grow different crops under the same irrigator, simply avoid irrigation on non-productive areas under it, or respond to variations in water demand," he says. "What

**"Variable rate irrigation can reduce a farm's water, nutrient and carbon footprints, creating better financial outcomes while improving our environmental performance." – Associate Professor Ian Yule**

Precision Irrigation has done is produce a system that overcomes all of these difficulties; add Carolyn's work to this and we now

have a system that can match water application to variable soils."

Bradbury and Ricketts studied mechatronics at the School of Engineering and Advanced Technology before starting the company. Bradbury says the system is proving popular in New Zealand and there is interest from overseas.

"Interest is growing; we've had feedback from farmers who've installed the system, one farmer saying it has saved him \$50,000 in potential lost crop in just one season," he says. "Another dairy farmer, who installed a system worth \$30,000, says he's saving about \$10,000 a year."

Case studies indicate that the system doesn't only lower water use, it reduces drainage and has the potential to reduce leaching from agricultural land.

"Variable rate irrigation can reduce a farm's water, nutrient and carbon footprints," Yule says. "It is a win-win, creating better financial outcomes while improving our environmental performance." ■ – Bryan Gibson



# Mangoes and mobile phones, fales and fridges

**S**ociology professor Cluny Macpherson has spent the past 40 years of his life coming and going between New Zealand and Samoa. In this period he has observed, as both resident and researcher, fundamental changes to village life.

These rich observations have come together in *The Warm Winds of Change – Globalisation and Contemporary Samoa* (Auckland University Press, 2009), co-written with his Samoan-born wife La'avasa Macpherson. In it, they explore how increased exposure to the global culture and economy is transforming traditional Samoan village life.

They provide tangible evidence of the ways in which access to new ideas, technologies and capital is transforming the economies and lifestyles of villages.

Widespread access to reliable power brings with it access to the internet, internet cafes, fridges and television, and has the potential to change the village lifestyle in fundamental ways, Macpherson says. Access to running water, new sprays, chainsaws and brushcutters transform the economics and organisation of village agriculture.

Documenting this shift from baskets to buckets, pandanus to polypropylene mats, the Macphersons reveal how change has been driven by migration, and nurtured through networks of affluent, loyal Samoans based in Sydney, San Francisco, Auckland and beyond who provide support in the form of finance, new technology and ideas to their families in the islands.

"Samoa is arguably the most exposed to global forces of the Pacific states," says Macpherson, who teaches social and cultural studies at the Albany campus, and has published widely in the area of economic and social development in the Pacific region.

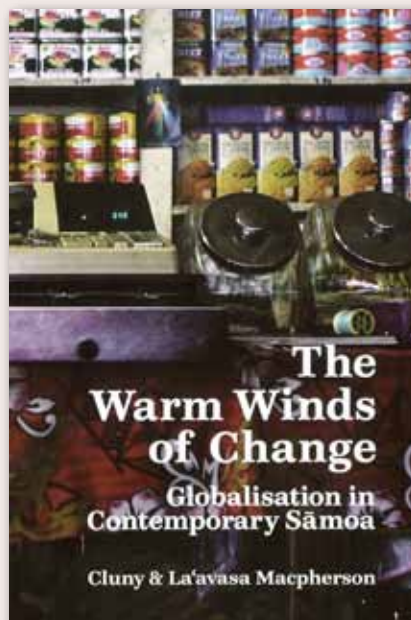
The Macphersons, who live part of the year in a village 10km from Apia, say economic change has altered social traditions and structures too. "What happens when people get a fridge? In the old days, people gave away fish, and in doing so they acknowledged important relationships. With a fridge a person can keep the fish, which raises the question of what happens to the relationships?" he says.

Modern technology has meant better opportunities for many, he adds. A fisherman who can afford to buy a gas-powered spear gun, GPS and a boat with outboard motor with help from expat relatives can increase his catch and shift to export from subsistence local trade only.

The increasing prevalence of mobile phones and the Internet has meant people are exposed to many more ideas from outside Samoa, which has led to a challenging of traditional chiefly authority in some situations, such as the amount spent on lavish ceremonial gatherings.

"Samoa is a useful case study as a forerunner of what will ultimately happen in all Pacific states," MacPherson says. ■

– Jennifer Little





# Creativity, connections and academic reform

A feature of progressive universities in today's fast-changing world is a willingness to redesign and renew study programmes and qualifications.

As it celebrates 50 years of distance learning, Massey University is looking to the future with renewed emphasis on curriculum design, delivery and scope.

To provide the breadth and depth of knowledge that graduates need, an Academic Reform project is under way to position the University at the forefront of knowledge transfer.

The project is multifaceted. It initiates a framework for teaching and learning where the defining attributes of our graduates – shaped by the unique characteristics of our diverse disciplines – guide the design of our qualifications.

Students are the centre of our endeavours and therefore lie at the heart of the teaching and learning framework.

Phase one of the project is to define and agree the attributes of Massey graduates that are “distinctively Massey” and best communicate the University's strengths. We are not talking narrow conceptions of “work ready” graduates. Any education or training provider can make that claim. Our vision is of graduates who continue learning and creating new pathways and connections for themselves and those around them – or, to cite our marketing line: “forever discovering”.

Two potential examples of defining attributes, on which we are seeking feedback, are “connected” and “creative” – that is, for Massey graduates to be defined by their creativity and their connections with professional practice, disciplines and research.

Connectedness builds on Massey's strong tradition of applied study by extending opportunities to apply learning in real world contexts, to interact with research, and to connect with the wider community.

Creative graduates are able to bring into existence new concepts or ideas, create new dimensions in the way information and knowledge are generated and applied, and explore all forms of human expression.

The challenge for us is transforming the intent into reality. Our major commitment in the next two years is to embed graduate attributes within our study programmes so they become living and real to our students. We also remain committed to meeting the needs of our current and future students with ongoing innovation in blended and distance education. ■

– Shelley Paewai



Shelley Paewai is the Academic Reform Project Manager.



Martin Pike, Maurice Tipene, and lecturer Dr Johan Potgieter.

## Massey-trained teams triumph in Battle of the Bots

Robot designers mentored by Massey University engineering experts have triumphed at the Vex Robotics World Championships in Dallas, Texas.

The teams – the home-schooled Free Range Robotics and the Kristin Doves, of Kristin School in Albany – won the grand final in partnership with a Chinese team.

The University's student teams also reached the finals, with the Albany campus team coming second in its category.

Dr Johan Potgieter, senior lecturer in mechatronics, engineering and industrial management at the University, says it was a fantastic atmosphere and he was proud, but not surprised, that the New Zealand teams dominated the competition.

"Massey mentors and trains the New Zealand teams and this year we took 16 school teams to the world championships," Potgieter says. "We teach them programming and basic mechanics as well as team building, and support them through the process. They are hugely talented. We did well last year and now other countries see us as the ones to beat."

The competition is sponsored by NASA and attracts teams from countries including Brazil, Canada, China, Colombia, India,

Japan, Malaysia, Mexico, New Zealand, Puerto Rico, Saudi Arabia, Singapore, the United Kingdom, and the United States for three days of non-stop, high-energy robotics challenges.

Professor Ian Maddox, associate head of the University's School of Engineering and Advanced Technology, says it is great to see the teams competing and winning on the world stage.

"Engineering is fun and exciting and this competition is not just about building robots, it's about strategy and tactics and forming alliances and playing games. It's not just for nerds and geeks," he says. "These children are bright and full of imagination and we are trying to get more school pupils interested in maths and engineering."

Sponsors for New Zealand teams include New Zealand Trade and Enterprise, Fisher and Paykel Healthcare, FedEx Express, Smales Farm, Glidepath, US Consulate and Massey University.

Maddox hopes more sponsors will come on board to ensure the success continues.

"There are opportunities for New Zealand industries to identify and support this talent," he says. ■





## Distance learning expertise sought by Australia

Massey University is a founding member of a new research consortium with four Australian universities.

The Distance Education Hub includes the University of New England in Armidale, Charles Sturt University, Central Queensland University and the University of Southern Queensland.

With the aim of supporting research into best practices for distance learning, it is backed by the Australian Government's Education, Employment and Workplace Relations Department through a \$A3.5 million diversity and structural adjustment fund. It was launched last month at the New England campus, from where it will be hosted and directed.

The hub is governed by a steering committee consisting of partner universities, with Associate Professor Mark Brown representing Massey on the committee. In addition, a reference group made up of leading people in the field will provide external review, feedback and advice.

Brown, the University's Blended and Distance Education director, says the invitation to join the Australian-based research consortium is a reflection of Massey's reputation in the international distance

education community. "Massey brings a wealth of experience to DEHub and, in return, we look forward to participating in a number of collaborative future-focused research projects," he says.

"A new generation of design and delivery technologies are now challenging traditional approaches to distance learning and DEHub allows Massey to learn from the experience of other major providers. Massey can also play an important role through the consortium by contributing to new conceptions of blended and distance education throughout Australasia."

The funding includes support for an international conference to be held next February. ■

At the launch of the new distance education hub, from left: University of Southern Queensland Deputy Vice-Chancellor (Global Learning) Professor Philip Candy, Charles Sturt University Flexible Learning Institute director Professor Mike Keppell, Central Queensland University Strategy, Quality and Review director Dr Leone Hinton, Distance Education Hub director Professor Brelinda Tynan from the University of New England, Vancouver Commonwealth of Learning vice-president Professor Asha Kanwar, Lance Deveson from the Australian Council for Education Research in Melbourne, and Massey University Blended and Distance Education director Associate Professor Mark Brown.

**MAY**  
19

### Three years in three minutes

For anybody who has wanted a short cut to understanding those diverse, demanding, and downright difficult thesis topics – Massey doctoral students have three minutes to explain and excite you about their research.

The grand final of the Three-Minute Thesis competition will be held at the Manawatu campus, Japan Lecture Theatre at 4.30pm on Wednesday May 19.

Visit: <https://alumnionline.massey.ac.nz>

**JUN**  
16-19

### Fieldays

New Zealand National Agricultural Fieldays is the largest agri-business exhibition in the Southern Hemisphere.

Massey University is committed to providing innovative responses to the issues facing the agri-food sector and has more than 400 staff working in support of industry, from soils to animal science, biosecurity and environment.

Mystery Creek Events Centre, Hamilton. June 16-19

Visit: <http://www.fieldays.co.nz>



# MASSEY APPAREL

Our expanding range of memorabilia and apparel now includes casual clothing with a contemporary campus feel, and heritage-inspired Heartland apparel – a tribute to Massey's spirit and unique place in the world.

As the range grows, we're sure you'll find the perfect souvenir. Visit our new online store at:

<https://alumnishop.massey.ac.nz>

Te Kunenga  
ki Pūrehuroa



MASSEY UNIVERSITY