

Ingenio

ET LABORE

MAGAZINE OF THE UNIVERSITY OF AUCKLAND

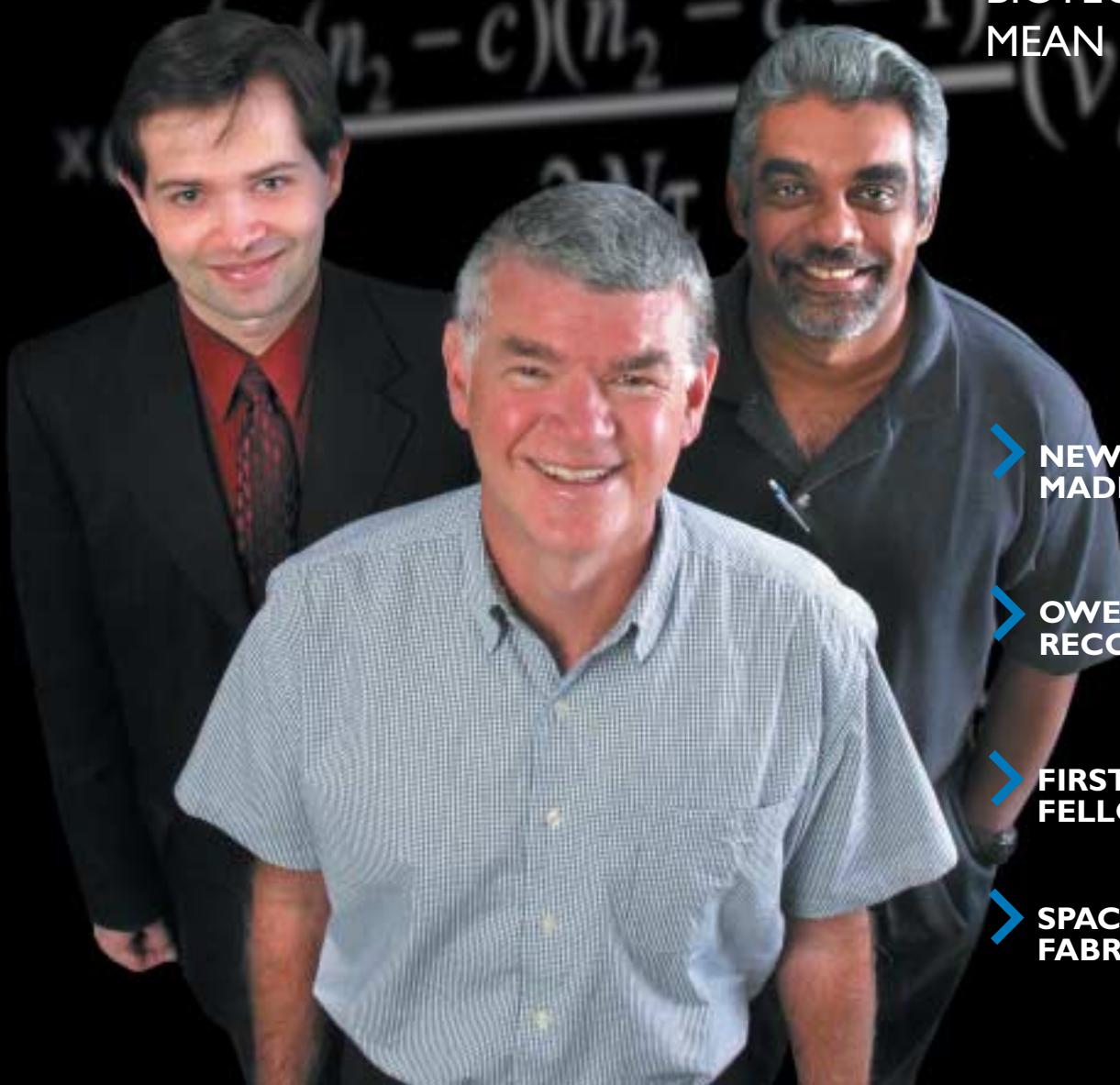


THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

AUTUMN 2005

SMART SCIENCE

BIOTECH BRAINS
MEAN BUSINESS



> NEW STUDENTS
MADE WELCOME

> OWEN GLENN'S
RECORD GIFT

> FIRST HOOD
FELLOWS NAMED

> SPACE-AGE
FABRICS

Celebrate THINKING

CREATING and sustaining a world-class university is a team effort. The articles in the pages that follow highlight the work of just some of the staff at The University of Auckland whose achievements exemplify the institution's ambition to be recognised internationally for the quality of its research and teaching. As the new Vice-Chancellor, Professor Stuart McCutcheon, remarks on page 3, no New Zealand university will ever displace the likes of Harvard and Oxford from the positions they have achieved – reflecting centuries of intellectual development and generous support – but it won't be for want of trying.

Professor McCutcheon knows he leads an institution in extraordinarily good heart, staffed with researchers and teachers who exemplify the fine Kiwi tradition of using limited resources so effectively that they can proudly stand alongside their more richly endowed counterparts on the international stage. We hope you will enjoy reading about some of them here, alongside the achievements of high-flying alumni who have made their mark both at home and abroad.

This fifth issue of *Ingenio* also celebrates the vision of donors and philanthropists who have been so impressed by the University's commitment to excellence that they have offered generous financial support to specific initiatives. For its part, the University is constantly striving to develop partnerships with both private enterprise and government to ensure that the research undertaken by its people will inform the nation's economic, social, and cultural development.

This issue incorporates some changes reflecting a readership survey we conducted over the summer, which showed us that alumni and friends regard *Ingenio* as an important link to the University. You will find some important contact details on page 21 and we urge you to keep in touch with us so we know what you think.

PETER CALDER
Editor



INGENIO ET LABORE

Ingenio ET LABORE



> CONTENTS

2 VIEW FROM THE TOP

The new Vice-Chancellor, Professor Stuart McCutcheon, is excited to be leading the country's premier university.

5 SAVVY SCIENCE

University of Auckland scientists are speaking the language of business in the biotech century.

8 RED MEANS GO

Newcomers on campus get a cheery welcome from an army of Uniguides in a successful new programme.

14 MATERIAL DIFFERENCE

A mechanical engineering PhD student works at the cutting edge of materials science.

18 A HEAD FOR BUSINESS

The name of the new Business School building will recognise the generosity of a successful New Zealand entrepreneur.

24 NUMBER CRUNCHER

The first group of Hood Fellows includes a world-class University of Auckland mathematician.

26 SEEING THE FUTURE

An online tool developed by a University of Auckland epidemiologist will help GPs predict patients' health risk.

- > DISTINGUISHED ALUMNI
- > KEEP IN TOUCH WITH US
- > BUSINESS HISTORY
- > HOW TO BUILD A RACING CAR



VIEW FROM THE TOP

The new Vice-Chancellor started on January 1, but he hit the ground running. He talks to *Ingenio* editor **PETER CALDER** about the challenges ahead.

It's a good view from the Vice-Chancellor's office on the top floor of the Registry in what is officially known as Alfred Nathan House. Beyond the handsome wooded expanse of Albert Park, which stretches away to the west, the tops of the city towers peep above the trees. In the afternoon sun, it's as pretty a picture as you can get in central Auckland.

But the man behind the big desk doesn't spend a lot of time taking in the view. The new VC, Professor Stuart McCutcheon, officially occupied the room only on January 1, succeeding Dr John Hood who is now VC at Oxford (Professor Raewyn Dalziel, the Deputy Vice-Chancellor (Academic), had occupied the position in the interim). But it is safe to say that he hit the ground running. In the six months between his appointment and his starting work he had several meetings with Deans and other senior managers. "It was not a completely cold start," he says. "There's been quite a lot of learning going on."

McCutcheon, 50, who came to The University of Auckland from four years as VC at Victoria University of Wellington, says he is excited by the challenge of the country's biggest university job.

"Auckland is, by any standard, the premier New Zealand university," he says, "and the job was particularly attractive because Auckland has such a very strong research base."

He is no stranger to that area of management; he was DVC (Research) at Massey University before taking up the Victoria job. But Auckland, he explains, "has taken on the real challenge for New Zealand universities which is to start thinking and benchmarking with a very strong international focus".

He is under no illusion that The University of Auckland faces a stiff challenge in doing so, since the university sector here is under-resourced by international standards: even in our nearest neighbour, Australia, universities are funded at twice the rate of ours. But McCutcheon is undaunted.

"No New Zealand university is ever going to be Harvard or Oxford or Princeton. That's not just about money but it's also to do with history. It takes a very long time, and a massive investment to build up a first-class university. But Auckland is currently ranked somewhere between 50th and 200th in the world, depending on what rules you plug into the ranking. Given that there are several thousand universities in the world, that's a pretty good starting point from which to create new ambitions for the institution."

The University of Auckland has the advantage of being in the largest population centre and enjoys the support of some "very generous" donors, the VC says.

"But the reality is that that resource will always be limited in size because you don't have great personal wealth in New Zealand and there is a limited industrial base from which to generate research.

"So we also need to use the resources we do have more cleverly than our international competitors. If you have a lot of resource, there is a temptation to not be very strategic with it. New Zealanders are quite good at using what we have effectively: we work hard, we're not wasteful. Sometimes I think we err in the other direction; we can be under-ambitious. But we can be pretty nimble

save for your education or that you support the education system were not part of the New Zealand way of doing things, although they have been understood in other countries for many years."

In such a funding environment, The University of Auckland has maintained its edge in a number of ways: the Performance-Based Research Fund (PBRF), which allocates some of the public research funding on the basis of a university's research quality and output rather than its raw student numbers has, unsurprisingly, worked in Auckland's favour because its research outputs are so high. At the same time, the University has vigorously pursued private funding for research and aggressively marketed the research it has done; and finally, it has benefited from the generosity of individual donors who believe in backing winners.



➤ **NEW VC STUART McCUTCHEON:** "I don't believe in fixing things that aren't broken."

PHOTOS: GODFREY BOEHNIKE

and our rankings show that. And while we're at it, taking a bigger share of the international resource would do us no harm, either."

The last decade has been something of a watershed in our understanding as a nation that the wholesale public funding of high-quality, research-led university education is a thing of the past. It has been a paradigm shift in the thinking of people who believe that paying for education is the Government's job.

"It was the Government's job until the early 1990s," says McCutcheon. "It's only since then that we have seen a pattern of a declining Government subsidy for each student – thus increasing fees – and at the same time a massive increase in the numbers of students. The idea that you

"Staff here have been extraordinarily successful at generating support from philanthropy and private research purchasers who clearly understand and appreciate what The University of Auckland is trying to do."

McCutcheon's predecessor had a profound influence on the institution he ran for five years and on the tertiary sector as a whole, but if the new man is daunted by the size of the shoes he has to fill, he shows no sign of it.

"John Hood and I worked closely together on the New Zealand Vice-Chancellors' Committee," he says, "and, although we sometimes approach things differently, what we see as important is fundamentally the same. John did a fantastic job of getting the University through some very serious challenges to a



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

Ingenio – a magazine of
The University of Auckland

Autumn 2005
ISSN 1176-211X

Editor

Peter Calder

Art direction

Richard Hesom-Williams

Design

Nick Collins

Peter Watson

Contributing writers

Jason King

Sue Reidy

Joanna Wane

Bill Williams

Photography

Godfrey Boehnke

Geoff Dale

Advertising Manager

Don Wilson

Production

First in Print

Contact details

Ingenio

External Relations

The University of Auckland
Private Bag 92 019
AUCKLAND

University House
19A Princes Street
AUCKLAND

Telephone: +64 9 373 7599 ext 87698

Facsimile: +64 9 373 7047

Email: alumni@auckland.ac.nz

Website: www.auckland.ac.nz/ingenio

Advertising enquiries:

Don Wilson – PO Box 38-618, Howick,
AUCKLAND

Telephone: +64 9 535 7275

Facsimile: +64 9 535 7295

Mobile: +64 27 480 1868

E-mail: don_wilson@xtra.co.nz

Copyright

Articles reflect personal opinions and are not those of The University of Auckland. No parts of this publication may be reproduced without prior consent of The University of Auckland. All rights reserved.

© The University of Auckland 2005

“WE ARE GOING TO HAVE TO EXPECT MORE AND MORE PRODUCTIVITY FROM PEOPLE BECAUSE OUR YOUNGSTERS ARE GOING TO HAVE TO SUPPORT AN AGEING POPULATION.”

position where we are able to play to our strengths.”

In any case, McCutcheon does not believe in fixing things that aren't broken.

“Unless you have to, it's unwise to shake organisations up for the hell of it. Universities are by their nature conservative institutions and big shake-ups of such organisations can destabilise them for a long time.”

As a Wellingtonian coming to Auckland, he has been unfazed by the traditional north-south rivalry, exemplified by the last Mayor of Auckland's highly publicised slanging matches with his Wellington counterpart. But he says the differences are striking.

“Wellington is very clearly a public-sector town; here the focus is much more on relationships with business. But one of the things I can do is help the University with its relationship with the Government and the public sector, not because I'm particularly political but because, by virtue of having been in Wellington, I have quite good relationships with the ministries and the ministers.”

He is concerned by the threats to traditional independence of universities posed by various Government initiatives, in particular the Public Finance (State Sector Management) Act which seeks to treat universities like any other part of the state sector.

“I think it is conceivable that the Government isn't so much hell-bent on control as on the integration of various parts of what it sees as the state sector but it adopted a pretty blunt instrument to do it,” he says. “We have a vast array of accountability mechanisms and I'm very happy for the University to be accountable for the money the Government spends on us; I'm a taxpayer too. But the Government pays us to deliver something. There's a big difference between insisting that BMW deliver you a good car which is

the same as the one you ordered as opposed to stepping in and dictating to BMW how they should run their business.”

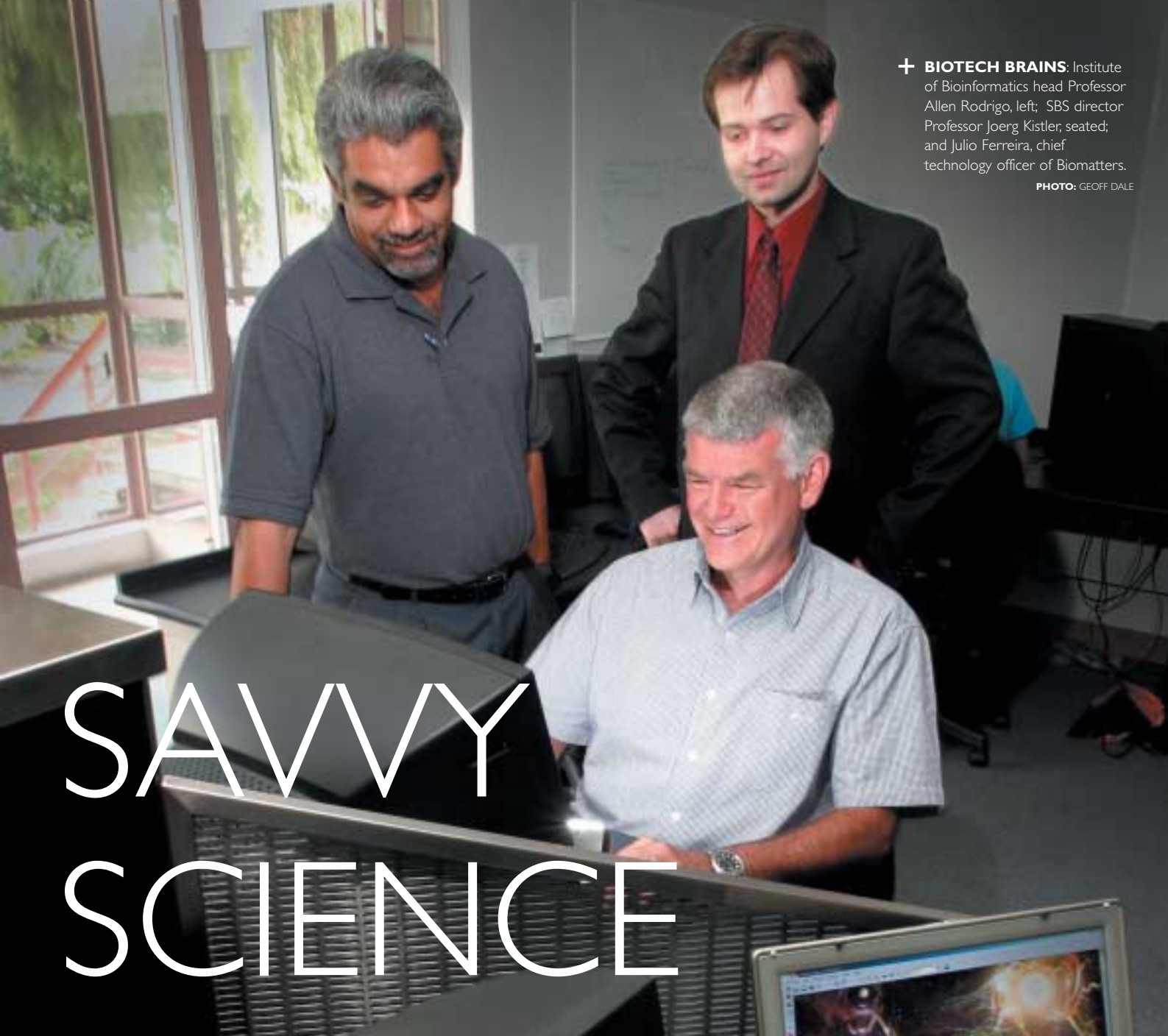
Among the biggest challenges facing universities in the 21st century will be the issue of whether they should seek more students or better ones. The “massification” of university education has been a feature of the last 15 years – national student numbers have ballooned from 67,000 to 130,000 since 1990 – and meanwhile the population is virtually static, but ageing.

“We are going to have to expect more and more productivity from people because our youngsters are going to have to support an ageing population. Meanwhile the nature of work is changing; many of the jobs our students will do haven't been invented yet. So they're going to have to be more productive in jobs they don't yet comprehend.

“That raises big issues about education in the sense of preparing people for a lifetime of work and a lifetime of being useful members of society as opposed to giving them skills that are useful tomorrow. Employers want skills that are going to be useful tomorrow because there is a shortage of labour. So there is an issue about the nature of education as well as an issue about what proportion of the population should be in university and what kind of education they should receive.”

Those remarks underline the perennial tension between growth and quality: should The University of Auckland seek to grow – its current roll is more than 35,000 – or rather concentrate on taking the very best students?

“That is certainly a discussion we need to have. And if we are going to talk about being elite, in the positive sense of creating opportunities for the nation's brightest students, we need to talk also about the students who are very bright and who aren't making it to university because of their socio-economic circumstances.”



+ BIOTECH BRAINS: Institute of Bioinformatics head Professor Allen Rodrigo, left; SBS director Professor Joerg Kistler, seated; and Julio Ferreira, chief technology officer of Biomatters.

PHOTO: GEOFF DALE

SAVVY SCIENCE

Biotechnology requires science to understand business – and vice versa. **JASON KING** looks at how University of Auckland scientists are reinventing themselves.

Across Symonds Street from the leafy grounds of Old Government House is the Thomas Building, home of the School of Biological Sciences. Thousands of students have walked through these doors since 1968 to spend their days in the laboratories and seminar rooms, working towards degrees.

But the school long ago recognised that it has to be more than a place of learning. The 21st century has already been dubbed the biotech century and the scientists here represent a potent nucleus of knowledge and expertise. The result is what

classicists would call a chimera – a hybrid entity created by the meeting of science and business. They remain distinct disciplines but the school has become a place where they can understand each other.

A wander through today's Thomas Building is revealing: here more than 30 graduate students are working with Professor Garth Cooper on research for Protomix, the company he founded in 1999 to develop effective therapies for the worldwide scourge of diabetes; there is the local office of another spin-off

biotechnology firm, Biomatters, where a quartet of programmers share space with a group of students in the Institute of Bioinformatics on the ground floor; up a flight of stairs is the office of David Saul, one of the scientists behind yet another biotech start up Pacific Gem, founded on a novel application for DNA forensics work.

The Protomix story is well-known. Cooper, hailed as New Zealander of the Year by *North and South* magazine in 2003, is a veteran of the biotech industry in the United States. There he synthesised

the compound amylin, a peptide hormone for the treatment of diabetes, and subsequently co-founded Amylin Pharmaceuticals, now a Nasdaq-listed company with a market capitalisation of \$US2.4 billion. Since 1999 Protomix has developed into one of the New Zealand biotech industry's great hopes. The latest breakthrough has been this year's ongoing success with the clinical trials of the compound Laszarin, which has proven effective in reducing the dangerous heart enlargement that accompanies diabetes.

Pacific Gem is in the throes of start-up; much has to be kept under wraps at the behest of private biotech entrepreneur Neville Jordan. But already up and running is Biomatters, a company founded by former School of Biological Science graduates Alexei Drummond, Julio Ferreira, Athena Ferreira and arts graduate-turned-new business entrepreneur Daniel Batten.

Initially housed at The University of Auckland's business incubator project the ICEHOUSE, since late last year Biomatters has taken up residency in the Thomas Building at the Institute of Bioinformatics where the company's staff can immerse themselves in the disciplines that are their core business.

The head of the institute, Professor Allen Rodrigo, who supervised Drummond's PhD thesis several years ago, sits on the Biomatters scientific advisory board. The institute itself has been operating only since the middle of 2003, which is a mark of the discipline's novelty.

As scientists delved into the genome, they found themselves dealing with huge masses of data. For example, the institute is involved in analysing the genome of the wastewater bacteria *Acidovorax*, whose sequence of 4.3 million bases was

developed in a project led by Dr Susan Turner in the School of Biological Sciences.

Put baldly, bioinformatics is the computational organisation of biological databases. But more than simply organising data, it provides the tools to analyse and mine those databases to test hypotheses. Rodrigo puts it succinctly: "Bioinformatics converts data into information and information into knowledge."

"BIOINFORMATICS CONVERTS DATA INTO INFORMATION AND INFORMATION INTO KNOWLEDGE."

So life sciences students come to the institute to arm themselves with the computational skills they need to make sense of their work. And more. "We're totally interdisciplinary," Rodrigo says. "We bring computer scientists and mathematicians into the fold as it were, to try to use their methods in the biological sciences."

The fledgling Biomatters hunts in what it calls the post-genomic world, creating software and other bioinformatic solutions for scientists working in medical and genetics science. The company's flagship product is Cheesecake, a software programme that allows scientists to manage aspects from animal husbandry to

ethics reporting and experimental design for in vivo laboratory research. Athena Ferreira tested an early version of Cheesecake while completing doctoral research at the School of Biological Sciences. She completed her research nine months ahead of schedule and felt the software tool allowed her the experimental freedom and success that led to her gaining a post-doctoral place at Oxford University.

Rodrigo says sharing space with Biomatters had to be a mutually beneficial arrangement. Biomatters offers four studentships and Rodrigo was selective about what work students would do. "We wanted them to have creative roles that suited their various levels. We take the view that good education comes about when graduates have an understanding of what it is like out there, how companies work and the science behind those companies."

In addition to the studentships, the institute has the rights to a licence for one of the company's new software products i-Seek, a programme designed to speed up the analysis of DNA sequences.

In return? Biomatters chief technical officer – and Athena's brother – Julio Ferreira says: "What Biomatters needed was to be in an environment where everybody is talking about bioinformatics, where the science is active. We get the benefits of full immersion in the discipline, the flow of information and ideas."

Biomatters is only the latest in a series of joint ventures for the Institute of Bioinformatics. It owes its origins to a co-funding agreement between The University of Auckland and AgResearch, the country's largest Crown Research Institute. A recent project is the joint



✚ **BRADOO:** In the age of biomedicine.

CATCHING THE LIFE

When young scientist Priv Bradoo mentions the name of the new organisation Chiasma, life science students know immediately what she is on about. The chiasma is the cross-shaped connection formed when male and female chromosomes meet. It's a key stage in conception and, considering the fledgling organisation's aims, an entirely apt name. Launched last September, Chiasma is the life sciences equivalent of Spark, the business booster group created by the Postgraduate Students Association, the Business School and its affiliated business accelerator, The ICEHOUSE.

"We're in the age of biomedicine," says Bradoo, 23, a final-year doctoral student at the Liggins Institute at The University of Auckland's Medical School, "so a few of us felt it was time to create Chiasma, to help biological science students to think outside the square in an entrepreneurial way."

Chiasma mimics the structure of the biotech start-ups. Bradoo is the chief executive, her colleague Swati Sharma is chief operating officer and a student executive of 10 divide up

venture with Weta Digital, film-maker Peter Jackson's special effects company. The institute has contracted space on Weta Digital's super-computer array for genomics contracts it carries out for a range of clients overseas. Weta keeps its computers busy between special effects duties; the institute gains access to the fastest computers in the country.

Presiding over the new entrepreneurial culture at the School of Biological Sciences is its Director Professor Joerg Kistler. The genial Swiss has no biotech start-ups on his CV, though he jokes that if one delves far enough into any Swiss person's background, banking or finance turns up. As it happens his father was an accountant.

"In a traditional university, the focus is singularly on good teaching and research with an entirely scholarly focus. I believe a modern university must also support the economic goals of the country."

He says the excellent basic research the school creates should be translated into applications and products for the biotech sector. Accept that and it becomes incumbent upon the University to provide learning that augments traditional roles.

Kistler says: "We want to produce scientists who are business-savvy and can work directly in the emerging biotech sector."

He says experience and research show that it is much easier to graft business skills onto scientists than for management to grasp the intricacies of science. In the United States, 900 students at 45 universities are working towards a qualification called the Professional

Science Master that aims to make general science graduates business-savvy. In 2002, Cambridge University launched its Master of BioScience Enterprise, aimed at life science students. Robyn Scott, a former graduate of the School of Biological Sciences, proved sharp enough to earn one of the 20 hotly contested places in this year's intake.

Kistler wants to make sure New Zealand is not left behind. The plan is to offer two new programmes in 2006, a Postgraduate Diploma in Bioscience Enterprise and a Master of Bioscience Enterprise. These programmes include training on the legal, regulatory, financial and management aspects of bringing scientific discovery into the market.

Life sciences students had their first taste of the new courses at a summer school last year where a range of guest speakers from biotech companies lectured

on topics ranging from the intricacies of intellectual property to raising venture capital.

For Kistler it is a simple equation. By partnering with industry, the school gains projects for graduate students and the funding to pay for them.

"We get the volume of research necessary to buy and operate large and expensive equipment. The school has recently invested \$4 million in mass spectrometry. It's a daunting amount.

"The traditional funding from Government is simply not sufficient. Partnering with industry lets the School of Biological Sciences gain access to non-conventional money that allows us to grow."

In return the companies gain access to top quality students. Kistler: "Doctoral students are great workers: they are committed for three years and they possess young and fresh minds."

By growing, the School of Biological Sciences can retain and attract the top-calibre staff it needs to remain internationally competitive, he says.

"If we're going to attract the best people they need to see that our infrastructure is world-class. Academics want to go somewhere they can be competitive."

The dividends are evident. The school has recently recruited staff from the Scripps Research Institute in La Jolla, California, the University of California Berkeley, Oxford University and Imperial College. "They have come from these top places to Auckland and I never saw that before," says Kistler. "It tells me we are on the right track."



SCIENCE WAVE

responsibilities such as event management, marketing and sponsorship. Bradoo was heavily involved with Spark but saw the need for a specific organisation for life sciences students. The National Research Centre for Growth and Development and biotech industry organisation NZBio agreed and put up \$40,000.

So far about 250 students have signed on. A Career Catalyst workshop earlier this year with room for 40 students was oversubscribed by twice that number.

In March, Chiasma announced the winners of I-Volve, a student competition for new biotech ideas with \$5000 for the chief prize.

It's early days yet, but Chiasma has caught a wave. Says Bradoo: "Chiasma is about lifting the entrepreneurial vision of students and letting them know just how strong the local biotech industry is. In the area of innovation it's the quality of the idea rather than the size of the organisation that counts. That's the way New Zealand can foot it against giant corporations."





✦ **WELCOMING PARTY:** Uniguides assemble among the crowds at Orientation.

PHOTOS: GODFREY BOEHNIKE

RED SQUAD

In the first few weeks of the year, smiling red-shirted volunteers were on hand to help newcomers. **JOANNA WANE** meets the Uniguides.

On the first day of Orientation, the Red Army invaded. A force of 150 highly trained foot soldiers was deployed among the clowns and street musicians, searching out new recruits before dividing into tight-knit specialist units. Dressed in distinctive red T-shirts, the Uniguides were back in action.

The Uniguides are the most visible part of a buddy programme designed to help first-year students settle in. They provide one-on-one support to newcomers during the crucial first six weeks on campus when the shock of landing in a new community of more than 35,000 can be so daunting that students stumble at the first hurdle.

The Uniguide scheme was very successful in retaining students last year. By the end of the year, only one per cent of students paired with a Uniguide had quit their studies.

This year, the programme has been significantly expanded: the number of Uniguides has been doubled and the

volunteer guides undergo a more intensive training process which focuses on providing emotional as well as practical support.

The Group Manager of Student Support, Bill Crome, says the size of the Auckland campus can seem overwhelming.

“Evidence from Australia suggests that if you don’t meet someone in the first two weeks, it’s much more difficult to meet students later,” he says. “With all the different degrees and range of courses here, students who went to the same school can arrive on campus and never see each other.”

The Uniguide concept was among a number of initiatives which arose out of recommendations by the Student Life Commission, established in 2002 in response to concerns that the University wasn’t meeting the needs of an increasingly diverse student population (last year, 16 per cent were internationals).

In January, a new Student Support Office, incorporating a range of services into a “one-stop shop”, opened in the Student Commons building. The office helps students with information on everything from rental accommodation and emergency financial support to finding places of worship on campus.

The headquarters for both the Uniguide and Orientation programmes, the SSO is also one of the contact points for the University’s 5500 international students, whether they’re looking for advice, a place to live or need to sign up for the mandatory personal and health insurance.

Crome says that it’s now recognised that new students need one-on-one interaction, not mass induction, to make the transition to university life. He’s taken on a part-time researcher to monitor student feedback and make sure the students are getting what they need from the scheme.

“If someone needs accommodation, our staff can make the phone call to the real

estate agent and arrange for them to pick the student up. If someone's suddenly short of money or their flatmates have all walked out, they can come in and have a chat about applying for emergency funds."

Internationally recognised in the field of student support, Crome has established research links with universities undertaking similar projects in Canada, Scotland, the United States and Australia. Last year, he was invited to present his work at the University of South Carolina's First Year Experience Conference and was guest speaker at another international gathering in Nashville, Tennessee.

"Initially we took ideas from here and there all over the place, but now we're pretty much leading the world in terms of knowing our student base and meeting their needs," he says.

The Uniguide volunteers have at least one year of university life behind them and go before an interview panel before being selected. Co-ordinators Samini Kumar and

Amy Jerram look for students who are not only clued up about the university system but are also good listeners.

"Last year we concentrated on providing practical support and getting around campus," says Kumar. "This year, they'll be on the look-out for the students' emotional well-being, too. For example, a lot of students have been bullied at school. Uniguides aren't counsellors, but they'll be aware of some of those issues."

First-year students who sign up for the scheme are divided into groups of up to a dozen and paired with a Uniguide from their faculty. Most have weekly get-togethers, sometimes over free tea and coffee which is available every morning in one of the function rooms at the Auckland University Students' Association. They stay in regular touch by email.

Over the six-week programme, contact gradually drops off as students gain confidence and become more independent. For a Uniguide, the ultimate measure of success is the opposite of a university's: a dropout rate of 100 per cent. **1**

THE UNIGUIDE SCHEME WAS VERY SUCCESSFUL IN RETAINING STUDENTS LAST YEAR. BY THE END OF THE YEAR, ONLY ONE PER CENT OF STUDENTS PAIRED WITH A UNIGUIDE HAD QUIT THEIR STUDIES.

PERSONAL TOUCH MAKES ALL THE DIFFERENCE

How do you use the library website? Where do I get my student ID card? How much does it cost to join the gym?

These were just a few of the questions a group of eight first-year students pitched at Uniguide Lisa Hsin as she showed them round the City Campus after an Orientation Welcome powhiri at the University's Waipapa Marae.

Among them were international students from Hong Kong, Sweden, South Korea and South Africa, plus an Australian and an Aucklander. Most were straight out of high school, but the eldest was a mature student in her 40s. All of them, like Lisa, were studying law.

After a 90-minute tour, the group swapped email addresses and arranged to meet the following Thursday to iron out any problems encountered in their first week.

For the next six weeks, Lisa (a Law School veteran now in her third year) will be their equivalent of an Alcoholics Anonymous buddy: a friendly face to call on for advice, a support person when times get rough and a lifeline if they're at risk of succumbing to the pressure and dropping out.

"Some are just really happy to have someone to talk to," says Lisa, who hopes her latest recruits will build lasting friendships and form their own study group



+ FRIENDLY FACE: "A Uniguide can point you in the right direction," says Lisa Hsin.

at the end of the year. "When you're new to the University, it seems very big and impersonal. Auckland is all cellphones and everybody looks so much cooler than you. Uniguides are where that personal touch comes in."

This is Lisa's second year as a volunteer Uniguide and she's brought to the role her own experiences as a new kid on the block. Originally from Taiwan, she moved to New Zealand with her family when she was nine and knows what it's like to be thrown into a totally foreign environment.

Last year, she put a lonely Singaporean student in touch with the University's Kiwi-Asian Club, which runs social events

helping international students maintain contact with people from their own cultures. But it's not only international students who can feel isolated, she says. With a couple of hundred students jamming into first-year law lectures, it's easy to get lost in the crowd.

In her first year, Lisa made few new friends and decided against joining any clubs because she didn't want to risk being distracted and failing her exams. "It was very scary for me," she says. "A Uniguide isn't there as a coach for your studies, but we can point you in the right direction. It gives you a person to go to when you need help rather than being left on your own." **1**

PAST MASTER

A mediaeval scholar minutely inspected what happened 800 years ago on the other side of the world without leaving Auckland.

It has to be said that Lindsay Diggelmann does not fit the stereotype of a mediaevalist. This does not look like a man whose mission in life is to pore over dusty documents and fragile manuscripts attempting to tease out of the historical record new intelligence about the past.

His brisk manner and rapid-fire speech – he starts answering questions before they're completely asked – are more suggestive of his last career, a decade as a foreign exchange dealer with the global banking giant Citibank.

"But once I started to look in the library here," he says, "it became apparent that we have a very good collection of useful material, much of which had been gathering dust for several decades. There was an absolute goldmine there, waiting to be explored and, as time went on, it was obvious that there was enough for my purposes."

The way in which Diggelmann worked on his thesis, which is entitled *Marriage, inheritance and the balance of power in 12th-century England and France*, is a

phrases which allows particular kinds of analysis."

The central argument of the thesis is that marriages in the "top end" of mediaeval society – royalty and the nobility – and the network of inheritances that resulted caused a fundamental shift between the beginning and end of the century in the way political power was exerted. His research sources included chronicle histories, legal and financial documents, charters, diplomatic treaties, letters and contemporary works of imaginative literature. He also drew upon extensive secondary literature in historical research and related fields such as anthropology, political science and literary criticism.

Diggelmann says it posed no difficulty not being able to "smell the documents" and having to work at one stage removed from his sources.

"There are mediaevalists who are manuscript experts. That's not me," he says. "What I do is more about interpreting texts that others have painstakingly provided for us."

Some might think that 800 years of scholarship had discovered all there was to know about the 12th century. But Diggelmann explains that the historian is always exploring the interplay between modern ideas and the past.

"Every generation looks at the past through its own eyes. The last 30 years or so has seen a revolution in the way we examine the past, with post-colonial and post-modern analysis. So I am looking at the 12th century from a different point of view. It's not just about what actually happened but about interpreting the past with new perspectives unfamiliar to previous generations of historians."

A University of Auckland graduate in English nearly 20 years ago, Diggelmann had always wanted to return to academia and pursue a doctorate. After studying undergraduate courses in French, Italian and History, he enrolled for his PhD under the supervision of Dr Kim Phillips, a senior lecturer in the Department of History and an accomplished medievalist herself. ❶



✚ **HISTORY MAN:** "Every generation looks at the past through its own eyes," says Diggelmann.

PHOTO: GODFREY BOEHNIKE

But then, Diggelmann, 40, is anything but your average mediaevalist. In May, he will be capped PhD on the strength of a thesis about an ancient topic which he researched by the most modern of means.

His thesis examines how the social institutions of marriage and inheritance gave rise to political change in England and France from 1100 to 1215. And he completed the whole thing without leaving New Zealand.

That fact is not as bizarre as it may seem to an outsider: when he started work on the thesis, he assumed he would need to go to Britain and France to do some of the research.

testament to the quality of the library at The University of Auckland. He was able to access leather-bound facsimile volumes of papal documents (in Latin, a language which he necessarily had to gain a good command of).

"It's an excellent collection," he says, "and a credit to previous generations of scholars who built it up. It certainly helped that some of the great collections of mediaeval documents are available online. They're there, in the library – 220-odd volumes sitting on the shelves – but when you access them online you can do digital searches for words and

Fostering dynamic leadership

Raising the quality of leadership in New Zealand is the ambitious aim of a ginger group called Excelerator established by the Business School.

A group of national organisations — Westpac, the Tindall Foundation, Bell Gully, Deloitte, Hudson and Sleepyhead — have pledged \$3 million to support Excelerator. Sir Edmund Hillary is its patron.

Excelerator aims to enhance the understanding, valuing and championing of leadership. It is cultivating leadership talent through “future leaders” and “advanced leaders” programmes, a virtual leadership network, and research.

At the recent launch of Excelerator, Chief Executive Dr Lester Levy said the purpose of the institute was to ensure the country would have talented and skilled leaders not just in business, but also in education, community, charity, government, sport and the creative arts.

Dr Levy, who heads the growing Excelerator team, has extensive management and governance experience in healthcare, biotechnology, and film and television production and is author of the book *Leadership and the Whirlpool Effect*.

“Leadership is neither a position nor a title, and it has no upper limits or boundaries,” said Dr Levy. “Its goal is simply to strive for outstanding performance.”



✦ **CULTIVATING TALENT:** Excelerator Chief Executive Lester Levy.

“The role of the leader is to create confidence and a sense of possibility. People in organisations, in communities and in countries are capable of great things, yet so often their purpose is misdirected and their efforts are mediocre. Leadership is about releasing the human spirit.”

Auckland tops doctoral scholarships

Half of the 44 national Top Achiever Doctoral Scholarships recently awarded by the Tertiary Education Commission went to University of Auckland students. The scholarships are awarded to only the top 10 per cent of doctoral candidates in New Zealand. Otago University gained five of the awards and Canterbury and Victoria four each.

The amounts allocated to the 22 Auckland students over three years range from \$63,380 to \$96,000. Of the total, 16 are working in the sciences — in biological sciences, medical and health sciences, electrical, computing and mechanical engineering, bioengineering, chemistry, physics and computer science. Their projects include a study of the impacts of psychological stress on the

body’s antibody responses to vaccinations, modelling ischaemia (damage) in the heart, and investigation of a novel vascular agent for targeting cancer.

PhD projects in the arts cover an equally wide range of subjects, including an exploration into the psychological effects of cultural displacement or exile in childhood on later forms of creativity, and a philosophical study of the concept of religious ambiguity and its role in a pluralist and more tolerant world.

“We are immensely proud of the achievements of these students who are among the country’s finest young researchers,” said the Vice-Chancellor, Professor Stuart McCutcheon. “They represent the best in academic scholarship in all disciplines across the University.”

Theatre’s new name recalls much-loved teacher

The smaller of the two Maidment theatres has been renamed after the late Professor Sydney Musgrove who headed the English Department for more than 30 years. The Musgrove Studio Theatre, with 104 seats (the main theatre has 450), is used mainly for student work and experimental productions. A plaque marking the renaming was unveiled in January by Marjorie Musgrove, widow of the man affectionately known as “Mus”.

At the function, Emeritus Professor Mac Jackson described Musgrove as “a key figure in getting the Maidment Theatre complex built” and “the main energising force behind the project”. He had revived the moribund Student Drama Society before he began the Outdoor Summer Shakespeare in 1963.

Professor Musgrove, who was on the University staff from 1947 to 1979, had also been a fine academic, said Mac Jackson. He had published on Shakespeare, Ben Jonson, Robert Herrick, Milton, Thomas de Quincy, Elizabeth Barrett Browning, T.S. Eliot, Walt Whitman and Robert Graves as well as more broadly on poetry and drama.

Last year the small theatre was in use for 251 days. This year it will host productions by the Department of Classics and Ancient History and by the German Drama Company from European Languages and Literatures. Other plays planned for this venue include Ibsen’s *A Doll’s House* and *Hedda Gabler* produced by an Auckland group called The Company of Angels.

For details of forthcoming events at both theatres please go to www.maidment.ac.nz



✦ **IN MEMORIAM:** Marjorie Musgrove (front) with her daughter Professor Judith Binney and Judith’s partner Sebastian Black, formerly of the English Department.

New chief for UniServices

Dr Peter Lee is the new chief executive officer of Auckland UniServices Limited which commercialises the University's expertise and research.

An Auckland graduate with a PhD in chemical and materials engineering, he has spent most of his career in the United States involved in commercialising new technology. Between 1988 and 2003 he held executive positions with the \$US30 billion International Paper Company. There he established a multi-million annual fund to sponsor external research at leading universities and other institutes, formed a product development force managing expenditures of over \$100 million, and led global research and development strategy. More recently he helped develop new lightweight, electromagnetically opaque sheeting to protect sensitive electronic equipment, and developed industry-leading coated photographic papers for desktop reproduction of images.



+ DEVELOPING KNOWLEDGE:
UniServices' Dr Peter Lee.

Dr Lee succeeds Dr John Kernohan, UniServices' founding CEO, who retired in January. UniServices, a company wholly owned by the University, manages research partnerships, develops new knowledge and technology, protects and commercialises intellectual property, and creates new businesses. Founded 16 years ago it is now the largest organisation of its type in Australasia. Last year it generated total revenues of more than \$70 million and was responsible for 12 per cent of the University's income.

Engineering student joins illustrious list

University of Auckland engineering graduate Richard Beal (pictured), will follow in the footsteps of great New Zealanders when he heads to Oxford to further his studies. Richard, former dux of Rosehill College and a Bachelor of Engineering in Chemical and Materials



Engineering, is one of only three students nationwide to be awarded a 2005 Rhodes Scholarship. Fourteen of the 36 Rhodes Scholars selected over the last 12 years have been from The University of Auckland.

Richard will undertake a DPhil in the Department of Materials Science at Oxford focusing on third-generation solar cells which, being based on titanium dioxide instead of silicon, are far cheaper than existing cells. His goal is to return to New Zealand well-versed in solar-cell technology so he can implement sustainable energy projects here.

OBITUARY

Imposing professor advocated a broad education

Emeritus Professor Gordon Bogle, founding head of the Department of Electrical (now Electrical and Computer) Engineering, died in Auckland in January, aged 90. Professor Bogle, renowned for his imposing intellect and physical stature, completed his Bachelor of Electrical Engineering at Auckland in 1935 and a Bachelor of Mechanical Engineering the following year. He won a Rhodes Scholarship and worked towards a DPhil at Oxford until the outbreak of World War Two, when he joined the Admiralty team engaged in developing radar systems. After the war, Professor Bogle returned to New Zealand to a position as chief electrical engineer at the Dominion Physical Laboratories (pre-DSIR), shortly afterwards becoming its director. In 1953, he became the first professor and head of the Department of Electrical Engineering and later Dean at the School of Engineering, then at Ardmore. He joined



Professors Alan Titchener and Neil Mowbray to become one of the three "founders" of the School, now the largest in the country. When the School moved into Auckland in 1969, Professor Bogle

moved his family to Brighton Road in Parnell, and for many years he was a familiar figure walking the so-called Ho Chi Minh Trail through the Auckland Domain to the University.

As well as being distinguished in his field, Gordon Bogle was an educated man in the fullest sense. With his wife Helen as hostess, the Bogle home became a lively hub for parties, attracting a stimulating mixture of people from academia, the arts and industry.

While his analytical mind proved intimidating to some of his students and he never accepted second best, former students recall him as a fine teacher who was patient with those struggling to master a topic. He was a strong advocate of a broad education for engineering students and insistent on accurate expression.

Professor Bogle is survived by his daughter, his five sons and nine grandchildren.

CLONING BUSINESS

The University of Auckland Law School is addressing the burgeoning trend in business franchises.

SUE REIDY reports.

The bookkeeper, working as a sole trader, had an idea: a service providing bookkeeping and regular financial information for self-employed people and small companies. "Accounting for this sector involves common sense," he reasoned, "it doesn't need to be done by a chartered accountant."

He had discovered a niche market. But he knew there was more work than he could deal with and he wanted to reap the benefits of his own idea. The solution was a franchise operation, SBA (for Small Business Accounting), which he set up in 2001. Four years later, he has sold 30 franchises, two of which are in Australia.

The bookkeeper is one of hundreds around New Zealand seeing the potential in this form of business. There's almost no limit to what may be franchised: it works for any business where the model can be replicated by operators who typically avoid competing with each other by servicing different territories – lawnmowing and fast-food operations are common examples.

University of Auckland Senior Lecturer in Commercial Law, Gehan Gunasekara, describes a franchise as "a type of business cloning".

"If someone has a good idea they allow someone else to use the concept to make money for the creator of the idea as well as for themselves."

Gunasekara explains that New Zealand is "a virgin market for franchising".

"There are huge potential areas for expansion. New markets are being created every day."

But the growth of franchising has brought its own problems.

"The nature of the relationships means that although there are opportunities, there is also the potential for exploitation. Many other countries have enacted



✚ NEW CHALLENGE: The growth of franchising has brought problems, says Gehan Gunasekara.

PHOTO: GEOFF DALE

comprehensive protection for franchise relationships, but New Zealand has yet to do so. We are the wild west, the last unregulated area as far as franchises are concerned."

Ideally, a franchisor's responsibilities include providing franchisees with adequate training, systems and support to help them to achieve their personal and financial goals. The arrangement ought to create an equal balance so that both parties benefit, says Gunasekara. But this is not always the case.

"Franchisors like to claim that franchisees will be treated as part of a family, that they will be looked after. But when the business relationship goes sour, the franchisor holds the franchisee at arm's length and the franchisee stands to lose their whole investment."

Gunasekara has been teaching franchise law at The University of Auckland for the past decade. The paper has proved a popular choice with postgraduate students – last semester a dozen students took up this option.

"It's important that we teach franchise law," says Gunasekara. "We need practitioners out in the field who are aware

of the problems and how they're being solved overseas. There are a number of models we can look at, such as the Australian one. The US-pioneered franchise regulation. In the masters programme we look at overseas models for comparison. Students debate the need for and the extent of protection. If practitioners are aware of the risks, they will be in a much better position to advise their clients."

David Munn, senior partner and franchise law specialist at Auckland law firm Gaze Burt agrees. "Entrepreneurial types have an increasing awareness of the franchising model. At first glance, it appears to be a way to make quick money because using franchisee capital provides an opportunity to expand a business faster. But relationship management is vital if a venture is to succeed, and many new franchisors fail to take this key factor into account, sowing the seeds of future discontent. Franchisees can't be treated like employees. The stakes are very high – they may very well have mortgaged their house to the hilt to buy a franchise."

Gaze Burt sponsors two prizes for postgraduate law students – one to the top student in franchise law. This year's winners are announced in May. **1**

STRESS MANAGEMENT

An engineer on the Tamaki Campus is stretching the boundaries of knitted material.



Knitting may seem a strange way to get a PhD, but that's exactly what Miro Duhovic had to do. More oddly still, he spent quite a lot of time trying to destroy everything he made.

The result has been a significant advance in our understanding of how to make plastics which could be stronger and more shockproof than steel.

Duhovic, 28, has just completed his research for a PhD in mechanical engineering in the highly regarded Centre for Advanced Composite Materials (CACM). The Centre, a massive structure on the edge of Tamaki Campus, looks at ground level like an aircraft hangar. On the immaculate concrete floor of the echoing work area, the centre's scientists conduct experimental tests of various kinds of composite materials – pressing or moulding them or subjecting them to various stresses to determine their properties.

But it is in the cool, quiet suites of computer laboratories along the mezzanine level that the really serious work is done.

Duhovic explains that the research for his thesis involved studying microscopically how the composite he was working with deformed under stress. He then copied that information onto a computer where it was analysed using a modified version of software originally developed to study car crash simulations.

“The computer enables you to look at aspects of the behaviour that you can't observe experimentally,” he says. “You can't put little strain gauges on the fibres but when you run it on the computer, it can actually tell you how much bending versus stretching has occurred.”

A composite is the name given to the single material which is in some way better – stronger, for example, or more flexible – than the two or more dissimilar

+ FABRIC SCIENCE: Miro Duhovic is working on composites which could be stronger than the sum of their component parts.

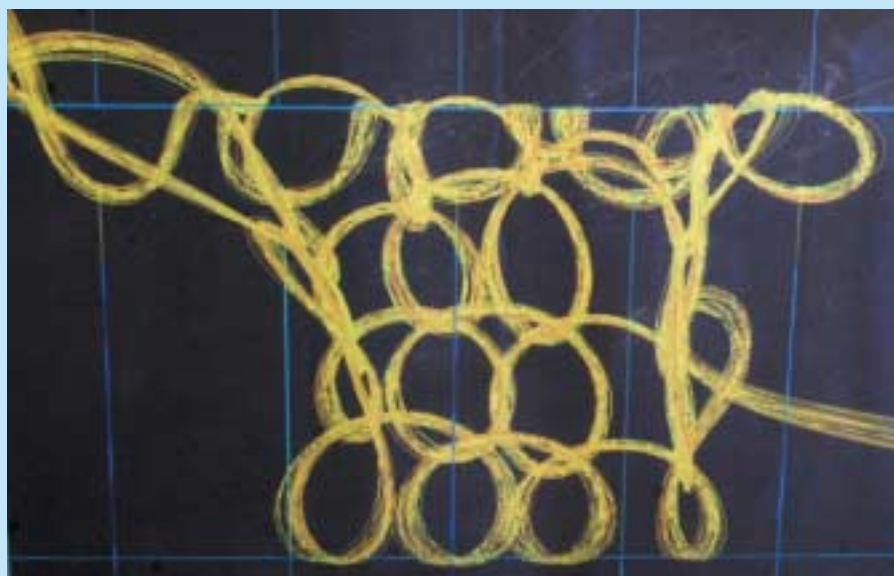
PHOTOS: GEOFF DALE

materials from which it was formed. Composite materials engineering is a relatively new field, although the principles underlying it are not new: the use of straw to reinforce clay bricks, for example, is an ancient technology, and scientists have known for years that reinforcing plastic with fibres produces a material that is superior to either the fibre or the plastic alone. But, Duhovic explains, the types of reinforcement are becoming more and more complicated and sophisticated.

The particular kind of composites Duhovic has studied are materials knitted into fabric in exactly the same way a cotton shirt or woollen jumper is knitted. The knitted material may lack the solidity of moulded fibreglass – in a surfboard, for example, in which the randomly chopped fibres are compressed into shape – or the rigidity of a composite in which the fibres are all running in the same direction. But it is infinitely more versatile, allowing the possibility of moulding material whose structural integrity is not compromised by curves and corners.

On his computer screen, magnified many times, his material looks eerily beautiful, much more exotic than the pressed and moulded fibreglass-like objects on the workbench downstairs. But when he holds up what looks like a prototype wing-mirror for a sports car, the possibilities leap into focus.

Duhovic's work has concentrated on advancing understanding about composite materials so that it will be possible to



+ **KNOTTY PROBLEMS:** Computerised models enable tests that would be impossible experimentally.

predict their forming behaviour and avoid the costly trial-and-error process during manufacturing.

Although Duhovic's work is not being developed for a specific end-user, the implications are endless: the new generation passenger jets from Boeing and Airbus both use advanced composites in structural and non-structural components and these developments in composite technology promise even lighter aircraft with all the fuel savings that might bring.

"But what we are trying to do is move materials into what I would call less exotic applications," he explains. "Ordinary, everyday consumer products such as automotive components or watch casings.

"Having one continuous yarn knitted into an entire piece of fabric means that the impact properties are very strong. So there are potential applications in things that require a lot of impact resistance – crash helmets, for example, or shipwrecks or motorway barriers or even structural components on cars which would absorb quite a bit more impact than metals.

"Because every single loop is connected to another loop, the impact is absorbed more. We did one experiment where we fired a BB gun at a panel of the material. In a normal reinforced material you have a very localised damage area but on the knitted fabric, we got these rings radiating out like the ripples when you drop a pebble in a pool."

– **PETER CALDER**

CENTRE ATTRACTS THE BEST AND BRIGHTEST

The Centre for Advanced Composite Materials (CACM) was formed during the heady early days of New Zealand's audacious campaign to win the America's Cup. The syndicate chasing yachting's most coveted prize encouraged six postgraduate students – two each in materials, fluid mechanics and sail design.

The centre director, Professor Debes Bhattacharyya, says that, as newcomers to a relatively new branch of engineering, the New Zealand institution had to learn to think outside the square. As befits a research institute in a research-led university, the scientists quickly realised they needed to break new ground.

"We used to teach the topic," he says, "but unless you are doing the research you don't get into the newer sides of it. You teach what everybody else is doing. Because we came to this field new, we took a new approach and started using the techniques of

metal-forming to analyse the formation of composite materials."

The CACM has established excellent relations with similar centres in Germany and at the University of Delaware in Wilmington as well as with the industrial giants DuPont and ICI. It also works closely with the local composite design firm High Modulus, whose principals, Brian Jones and Richard Downs-Honey are graduates of the school. It has already sold three patents and Bhattacharyya says that two or three more are in the wings. Its success on the international stage has seen it expand to the point that it now has seven teaching academics (including two professors of chemistry "because we need to know more about the chemistry of polymers"), six post-doctoral fellows, two research associates and some 35 postgraduate students.

"We have been very lucky to attract some of the brightest students and it grew from there," says Bhattacharyya.

STUDENTS TAKE THE WHEEL

The mechanical engineers building cars at Tamaki are not just petrolheads, **PETER CALDER** finds.

This cannot be an automotive workshop: there is not a single calendar of a bikini-clad blonde in sight.

But those are piles of tyres. And that is a racing car in the corner. A real one, even if it is a pocket-rocket – barely 3m long and weighing a mere 260kg.

It's an automotive workshop all right, and a pretty special one. They won't do an oil change for you or fix you up with a warrant. But here on the Tamaki campus, a group of University of Auckland engineering students designed and built a formula-style racing car.

What's better is that they did it in nine months. From scratch. Then they took it to a competition in Australia and, as complete newcomers, took sixth place in a field of 23 entrants from some of the top engineering universities in the world. They also – and this bit is perhaps less surprising – took out the Rookie of the Year award. The competition organisers hailed the Auckland students' effort as the best first-year car they had ever seen.

It was, as Chief Engineer Ashley Vandermeer puts it mildly, "a pretty pleasing result."

"But this year we've started earlier, early enough to do it justice."

The competition, officially known as Formula SAE Australasia, is one of half a dozen held worldwide each year which are widely regarded as crucibles of future engineering talent. Over four days of competitions students match the cars they have designed and built. The vehicles must be able to be manufactured for no more than \$A50,000 – although there are no restrictions on development costs – but this is much more than a road race. The contest requires them not simply to design and build a vehicle within 12 months, but also to present design, manufacturing and marketing analyses – and all aspects of the competition carry equal weight.



“S dSU` Y USd
Tg[^f i [fZ
` g_ TWd *
XWU` Y i [dW,
` ai fZSf1e
agd eadf aX
WY[` Wd`

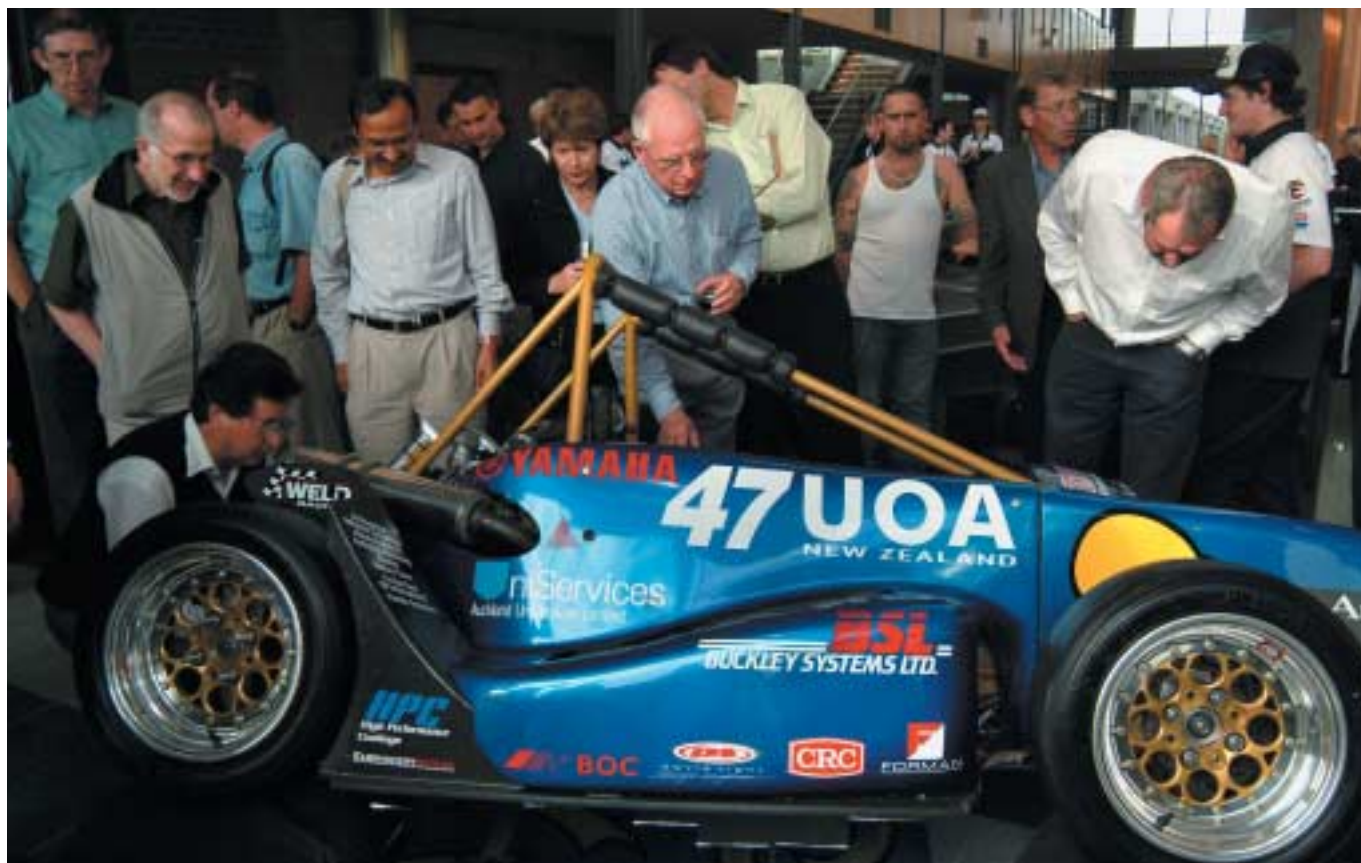
i Wwa Zai Wwd
bdWwd fZW
fa WwWab S
bdWwdWUWad
V[WwW ahWd bWda^
Se fZW _ SfgdW”

PRIDE OF PLACE : www.fletcherconstruction.co.nz

BUILDING

ENGINEERING

 **Fletcher**
CONSTRUCTION



✚ **POCKET ROCKET:** The students' first effort won plaudits.

PHOTOS: GODFREY BOEHNKE

It may sound less like university work than a bunch of petrolhead lads having fun but Vandermeer says it's top-end tertiary study.

"What this project allows us to do is work a design through from concept to full implementation," he says. "It's much wider than anything else you might do at university. You have to think about the cost side, the manufacturability of every part. Everything has to be real-world related."

Adds team leader Chris Paykel: "It allows us a lot more scope and freedom than you would ever get in a regular nine-to-five job. You use all the skills that you learn in engineering – not to mention the stuff we have to learn about marketing and business as well."

The assignment, which the students took on in addition to their studies, forced them to confront technical challenges and come up with creative solutions which stretched the boundaries of technologies.

And the limits on their development budget forced the team to think laterally and work flexibly as they sought innovative solutions to problems. One American team was rumoured to have had a \$US1.2 million budget from an oil company; the local effort had to make do with a low six-figure New Zealand dollar budget.

"You know can't take the most expensive option and one of the reasons we have been so successful is that we constantly have to look at other ways of doing things. We're not stuck in the rut of thinking that the way it's been done in the past is the way it should be done."

The race car project was a student-led initiative: though it was enthusiastically encouraged by the School of Engineering, the students ran it from start to finish.

"There's nothing like the feeling of having nobody looking over your shoulder telling you what to do," says Vandermeer. "When the buck stops with you, it's really exciting."

The core team of 20 swelled to around 40 at peak times and some were working more than 100 hours a week on the project. Generous sponsorship from local companies kept the project afloat, though the students are hoping to cultivate relationships with even more firms who are keen to back their winning effort.

Paykel and Vandermeer have extended their studies by a year to build up a team they can hand over to. And also because that's victory – and not just engine oil – they can smell.

"We're going back this year," says Vandermeer, "only this time it will be different. This time we'll win it." ❶

"IT ALLOWS US A LOT MORE SCOPE AND FREEDOM THAN YOU WOULD EVER GET IN A REGULAR NINE-TO-FIVE JOB. YOU USE ALL THE SKILLS THAT YOU LEARN IN ENGINEERING."

BUILDING BUSINESS

An entrepreneur who never attended The University of Auckland has made what is believed to be the largest-ever private donation to New Zealand education.

It would hardly be surprising if a self-made multi-millionaire who left school with only School Certificate looked askance at the idea of studying business at university.

But Owen G Glenn plainly believes in the importance of education. Even more plainly, he believes in the mission of The University of Auckland Business School. And he backed up that belief with a \$7.5 million donation, announced in February to an audience which included Prime Minister Helen Clark. It is believed to be the largest private-sector donation made to New Zealand education.

"I believe in what the Business School is doing," says Glenn, 65, the chairman and

CEO of the NACA Logistics Group. "I believe its plans to develop a world-class facility and world-class research and teaching programmes are going to be of huge benefit to New Zealand business and society."

The exceptional scale of Glenn's generosity is being recognised in the naming of the 27,000 square-metre Business School building, currently being constructed on the corner of Grafton Rd and Wynyard St on the eastern edge of the City Campus. The distinctive new building – part of a \$110 million-plus project to develop a world-class business school – is to be named The Owen G Glenn Building. It should be finished in early 2008.

The prospect of having his name above the door is one that Glenn is not ashamed to admit he relishes.

"I'm no shrinking violet," he says, "and I'll get a kick out of seeing my name attached to such a magnificent building. But more importantly, I hope that my example of making it in business on the world stage will act as an inspiration to others. Top-quality business education is vital to the future success of New Zealand and I'm delighted to be able to help in this way and to be part of the vision for the Business School and The University of Auckland."

To say that Owen G (for George) Glenn "made it in business" is something of an understatement. Calcutta-born but Auckland-raised, he left Mt Roskill Grammar with the first piece of paper he got and worked for the Bank of New Zealand for a few years before heading off and travelling in Europe. Returning to New Zealand, he worked in the freight division of the national airline – then called TEAL. The experience whetted his appetite for the business and he worked his way from the ground up – rather rapidly, it should be said – before co-founding the Direct Container Line in 1978.

DCL was initially established to service the ocean-transport needs of Australian importers buying goods from US manufacturers and it proved a great success, practically inventing the model for most international freight forwarders. It became the biggest non-vessel-operating common carrier in the United States and quickly grew from an entrepreneur-run company to a national company, then to a multinational corporation.



+ **PROUD DAY:** Glenn, with Prime Minister Helen Clark and Vice-Chancellor Stuart McCutcheon, inspects the model of the Business School building that will bear his name.



+ VISION FOR BUSINESS:

Owen Glenn's generosity is a token of his faith in the world-class Business School.

PICTURE: NEW ZEALAND HERALD/GREG BOWKER

NACA Logistics Inc, developed in 1998 as a shippers' association, is a group of separately operating transportation companies each of which works with the others to complement and coordinate services globally. It has more than 30,000 customers and employs 1300 staff in 90 offices.

Though he's succeeded brilliantly on the international stage, Glenn still regards himself as a New Zealander. He visits regularly from his land base in Sydney – he has many friends and a brother in Auckland, not to mention business interests here.

Glenn credits his business success to “ethics, hard work, timing and luck”. But he also believes in the importance of education – he is himself a graduate of Harvard University's OPM (Owner/President Management Program) – and his association with the Business School bespeaks his belief that the 21st-century entrepreneur needs more than luck to succeed.

“The Business School is already contributing greatly to New Zealand through the quality of its research and its teaching, and through its innovative partnerships with the business

community,” he says. “This world-class Business School project is going to deliver even more.”

Glenn hopes to be one of those to reap the benefits of what his donation will sow.

“I hope to use the University to do some critical research analysis,” he says. “I've just tapped into the China market and if they've got people who can come onto my research team to help me...”

His own daughter – aged 21, in college in the US – wants to come to study business in the building that will be named for her father.

The Dean of the Business School, Professor Barry Spicer, says Glenn is an inspiration to young entrepreneurs, having “built a global business from nothing through imagination, vision and hard work”. He says Glenn has operated in an uncertain, complex, globally connected world, contributing significantly to the development of logistics internationally.

“His success shows that anything is possible with intelligence, imagination, innovation, perseverance and drive. It is fitting the name of a New Zealander who has succeeded in business internationally should grace the new building.”

The University's initial fundraising target of \$50 million for the Business School was reached in June last year: \$25 million from the private sector was matched by Government funding, but Glenn's donation is by far the biggest single private contribution. The Business School has now raised \$58 million towards its final target of \$75 million.

It is not the first example of his generosity to The University of Auckland. In 2003, he donated \$500,000 to support the establishment of a Chair in Marine Science at the University's Leigh Marine Laboratory – “I made my living from the ocean so it was nice to be able to support that particular initiative” – and he has made other substantial donations to charitable and environmental causes.

But his association with the Business School whose main building will soon bear his name is an exciting development, he says.

“There are progressive minds there, people who think through things. It's refreshing. In business you often just deal with people that are in your business; you're not often challenged mentally.

“I think people will be proud to say they've been here.”

1



+ PRECIOUS MEMORY: Dr John Mayo's generosity will mean precious texts are preserved.

PHOTO: GODFREY BOEHNIKE

MEMORIAL TO LEGAL PIONEER

The widower of one of The University of Auckland's early woman law students has given the Law School an impressive new home for its antique law reports, statutes and texts.

Dr John Mayo, a retired Australian economist, met the cost of creating the Marylyn Mayo Rare Book Room, which was formally opened in March. His generous donation, in memory of his wife, who died in 2002, also covers the cost of restoring the fragile books in the Davis Law Library. The volumes, dating back as far as 1716, are the repository of fundamental legal principles and precedent-setting cases. Dr Mayo has also started an endowment fund to support work in the room and to fund teaching and research in law.

Professor Mike Taggart, who holds the Alexander Turner Chair in Law, warmly welcomed Dr Mayo's donation.

"The solution of every legal problem requires a knowledge of both what the law was and what it is, in order to know what the law may become. This room creates for the first time a comfortable working space where all the rare books are brought together, many on open shelves and all readily accessible, so that they can be productively used by the neophyte as well as the expert legal researcher.

"Much of the research that, a few years ago, could only be undertaken overseas can now be conducted here."

The reading room and two smaller adjoining rooms are now home to old reports, statutes and texts which had previously been held unkempt and even disintegrating in a single small, dusty room where they were inaccessible to staff and students.

The University of Auckland had fewer than two dozen woman law graduates when Marylyn Mason, as she then was, graduated in 1960 (gaining a BA degree in history as well). She continued her pioneering example as an office solicitor at the Ministry of Works in Auckland. In that role she was involved in litigation over the

country's fledgling motorway systems and earned the admiration of experienced male opponents who found themselves on the losing side in important cases.

Appointed to teach first-year law courses at the University of Queensland's campus at Townsville in 1969, she met and married John Mayo. Eventually she became the foundation head of the Law School at what had turned into James Cook University. John founded economics as a discipline at the same institution.

Marylyn specialised in jurisprudence, legal ethics and family law. She also took a strong practical interest in ethics, serving for many years on local and national ethics committees, including Australia's National Health and Medical Research Committee.

The Marylyn Mayo Medal is awarded annually to the best law honours student at James Cook University. The Law Students' Society there recognises her work in establishing law teaching through an annual Marylyn Mayo lecture.

The esteem in which Marylyn held her alma mater was evident in her establishment of a \$50,000 scholarship fund not long before she died in 2002. This provides \$2500 a year to help an academically able student whom financial hardship would otherwise prevent from completing the Auckland law degree.

After his wife's death, Dr Mayo was seeking further ways of preserving her memory. He made contact again with the person Marylyn had dealt with over the establishment of her scholarship, Carol Painter, who takes responsibility for planned giving in the External Relations Office. Of the potential projects suggested to him, a room for rare books appealed the most.

"There was no discrete funding to rectify this and it plainly needed an outside injection," he said. "Moreover it does not displace government money that would otherwise be forthcoming.

"Above all, it linked into Marylyn's past in the Law Faculty and her interest in law, and I wanted to see her honoured in that way."

Dr Mayo said his decision to finance the Rare Books Room reflected the sympathetic response and personal attention he received from Carol Painter, along with the enthusiasm and kindness of the Law Librarian, Mary Rose Russell. The University of Auckland's stewardship of donors is simply outstanding, he says. **•**

– BILL WILLIAMS



+ EARLY GRADUATE:
Marylyn Mayo



KEEPING IN TOUCH

The Alumni Relations Office is forming an international network of volunteer alumni co-ordinators to enable alumni to network and meet other alumni socially. If you live in or near any of the areas below and would like to be involved, we encourage you to make contact with your local volunteer coordinator. Alumni interested in being a volunteer co-ordinator in a region not listed are invited to contact the Alumni Relations Adviser, Jan Kerr (j.kerr@auckland.ac.nz)

BEIJING: Pei Xie: peixie003@yahoo.com

BRISBANE: Allanah Johnston: ajohnston@business.uq.edu.au

HONG KONG: Raymond Tam: tmkramond@yahoo.com.hk

KUALA LUMPUR: Khim Goh: khimgoh@recruitexpress.com.my

SEOUL: Esther Song: ilsun.song@volvo.com

SHANGHAI: Ling Cai and Frank Qiu: lcail009@hotmail.com

SINGAPORE: Patricia Pereira: patricia.pereira@janes.com

TAIPEI: Mago Hsiao: magohsiao@hotmail.com

VANCOUVER: Nigel Toy: nrltoy@stgeorges.bc.ca

COMING EVENTS

MEET THE VICE-CHANCELLOR

Alumni and friends are invited to meet the new Vice-Chancellor, Professor Stuart McCutcheon, at these events:

June 15 - Melbourne

June 17 - Sydney

June 29 - Singapore

July 4 - Kuala Lumpur

July 5 - Kuching

July 28 - Wellington

July 29 - Christchurch

September 16 - Hong Kong

September 19 - Seoul

September 21 - Beijing

September 24 - Shanghai

Other alumni events include:

September 9-11 - Auckland, Engineering alumni reunion

September 23 - Auckland, Maori Business Leaders Awards

November 10 - Auckland, Golden Graduates event

Additional events may be held. For more information on these and an up-to-date alumni event listing, please visit

www.alumni.auckland.ac.nz/calendar

ALUMNI AND FRIENDS

As a graduate of the University, you become one of our alumni community that now numbers over 100,000. The Alumni Relations Office provides you with a link back to the University even when you're no longer studying here.

Through the Alumni Relations Office, the University now provides a range of services and benefits for all our alumni. To find out about the benefits and services, plus upcoming events for alumni, visit the Alumni & Friends website at: www.alumni.auckland.ac.nz.

KEEP IN TOUCH

To ensure that you continue to receive Ingenio, and to subscribe to @auckland, the University's email newsletter for alumni and friends, please make sure you update your details at: www.alumni.auckland.ac.nz/update.

Contact us:

Alumni Relations Office, The University of Auckland, 19A Princes Street, Auckland City, New Zealand

Post: Private Bag 92019, Auckland, New Zealand

Phone: +64 9 373 7599 ext 82246

Email: alumni@auckland.ac.nz

Website: www.alumni.auckland.ac.nz

GRADUATES' VOICE

The newest of the three graduate representatives on the University Council is Kate Sutton, elected last December. She fills a casual vacancy and will serve until October 2005 when the three-year term of Dr Jill Holt, whom she replaces, was due to finish. At that point a further Court of Convocation election, as it is called, will be held. All graduates of The University of Auckland as well as graduates of the University of New Zealand can vote. As the rules stand, anyone who does not vote in two successive elections has to apply to become eligible to vote again.

Kate Sutton holds an MA in Political Studies and was president of the Auckland University Students' Association last year. She says that as well as youth (she is 23) she will bring extensive recent knowledge of how the University works to her task. She has no illusions about the importance of Council's governance role. It "holds the University together", she says, setting strategy and vision, upholding standards of excellence, and consulting with Government on key issues. The other graduate representatives on the 18-strong Council are John Morris (headmaster of Auckland Grammar School) and Lyn Stevens (an Auckland Queen's Counsel), both elected until July 2007.

NEW NAME FOR TRUST

The University's Charitable Trust has changed its name to the University of Auckland Foundation. The brochure enclosed with this issue of Ingenio explains the Foundation's aims and purposes.

THEIR BRILLIANT CAREERS

Five New Zealanders who have made their name in science, the arts, education and law received Distinguished Alumni Awards at a major dinner at the University in March. The awards, established in 1996, celebrate the achievements of alumni who have made significant contributions through excellence in their chosen professions. Each of the awardees had “fashioned and constructed brilliant careers”, said the Alumni Orator, Adjunct Professor Michael Brown. He underlined his belief that free education, nurtured and reinforced in the home, and the inspiration of great teachers and committed mentors, while highly desirable, were not enough. “In the end each of us has to realise the pursuit of knowledge traverses an individual pathway requiring, most importantly, self-discipline, which will inevitably be even more demanding when any or all of the earlier recited ingredients have been absent or less than adequate.” Universities and society needed such heroic examples and inspirational role models, said Professor Brown, “particularly where it is so manifestly exhibited by dedicated and hugely intelligent individuals such as those whom we honour tonight”.

GLENN COLQUHOUN

BA 1988, BHB 1993, MBChB 1997

The achievements of Glenn Colquhoun – doctor, writer and poet – have already secured him a prominent place in New Zealand’s literary landscape. His special talent has been recognised in the prizes he has won for particular works and for the award last year of the Prize in Modern Letters, New Zealand’s highest literary accolade. He has published three collections of poetry: *The Art of Walking Upright* won the Jessie Mackay Best First Book of Poetry Award at the 2000 Montana Book Awards; *Playing God*, his third collection, won the Poetry Category Award 2003 and the coveted Readers’ Choice Award in 2004, the first time a book of poetry has won this award.



Glenn has been likened to historian Michael King in exploring what it means to be a Pakeha. His work, which is widely read, reflects his experiences living and working as a general practitioner in the small Northland community of

Te Tii, where he went to learn more about Maori values and language. Through his work, he explores and challenges modern medical practice and some accepted notions of it, as well as the issues of race and identity. Accepting his award he said it had come as “a bolt out of the blue. I am very honoured and very humbled to accept it.”

HILTON GLAVISH

BSc 1961, MSc 1963, PhD 1969

Physicist Hilton Glavish is noted worldwide for his major contribution to the high-technology semiconductor industry. He graduated PhD after developing an atomic beam source of polarised ions for use in the study of spin angular momentum effects in

nuclear reactions. His entrepreneurial flair was apparent even then, he having formed in 1966 a company to manufacture nuclear equipment, particularly the polarised ion sources which he and others had designed. In 1970, Hilton joined the Physics Faculty at Stanford University, California. He was a consultant on many major projects, including assisting CERN Europe in the development of an intense polarised ion source, and working with Princeton University and Oak Ridge National Laboratory on the US



Department of Energy Fusion programme. Using his consulting experience, Hilton capitalised on the semiconductor boom, designing systems used in the manufacture of large-scale semiconductor integrated circuits such as computer, logic array, and memory chips. Today, the major chip manufacturers throughout the world use his patented technology and implanter designs. Much of the high-technology manufacturing of magnets, designed by Hilton, has been done in New Zealand – by ANAC until 1982, and then by his associate Bill Buckley of Buckley Systems – making a significant contribution to export earnings. Last year, he and Bill Buckley endowed the Buckley-Glavish Chair in Physics at Auckland to enable expansion of geophysics research to a problem of global significance, with the first appointee to apply physics to the understanding of global climate change. Hilton Glavish paid tribute to two mentors sitting at his table who had “changed the course of my life”: Cyril Hicks, his teacher at Seddon Memorial Technical College, had convinced his parents that he should continue at school to do School Certificate and Professor Ted Collins had encouraged him to attend a conference in Karlsruhe, Germany which led to him being invited to the United States by scientists interested in his polarised ion source.



THE HON JUSTICE SUSAN GLAZEBROOK

BA 1975, MA 1978, LLB [HONS] 1980, DPhil [OXFORD] 1988, DipBus [Finance] 1995

Susan Glazebrook's distinguished law career led to her appointment to the High Court in 2000 and to the Court of Appeal just two years later. As a member of the Advisory Council of Jurists, established by the



Asia-Pacific Forum of National Human Rights Institutions, she has played a leading role in two major reviews – on human trafficking and on the rule of law in combating terrorism. Susan joined Simpson Grierson as a law clerk in 1986 and within three years was given a partnership where she rose to national prominence in the field of taxation. Her mastery of the New Zealand Accruals Regime was recognised by her appointment to an Inland Revenue working party to draft legislative amendments in what was then a fledgling area. She

has served as a Council member of the Auckland District Law Society, the Legal Research Foundation and the New Zealand Law Society Taxation Committee, and in 1998 was President of the Inter-Pacific Bar Association, an organisation of business lawyers in the Asia-Pacific region. She also served briefly as a member of The University of Auckland Council. Before joining Simpson Grierson, Susan had a varied career, including junior lecturer in history at Auckland, working in Rouen, France, with an organisation responsible for the resettlement of political refugees in France and research assistant to the historian Sir Keith Sinclair. She is the co-author of the taxation text, *The New Zealand Accrual Regime – A Practical Guide*, and numerous papers on various legal topics. "The University of Auckland has played a large part in my career," she said at the dinner, "and I am proud to have been a student here."



MARYA MARTIN

DipMus 1976, MM [YALE] 1979

Virtuoso flute player Marya Martin has had a remarkable career both as a performer and teacher. After graduating in 1976, she was awarded a Queen Elizabeth II Arts Council grant to study at Yale University in the United States. She then moved to Paris to study with Jean-Pierre Rampal at the Conservatoire Nationale Supérieure de Paris and with Sir James Galway in Lucerne, Switzerland, widely considered to be the two

international icons of flute playing. The only flautist ever to be the top prizewinner in the New York Naumburg International Competition, the Munich International Competition, the Jean-Pierre Rampal International Competition, the Young Concert Artists' International Competition and the Concert Artists' Guild, all within two years, Marya made her New York debut in 1980. Since then, she has enjoyed a distinguished career as a soloist, recitalist and chamber musician. She has performed throughout the world including appearances in London, Tokyo, Paris, Australia and New Zealand in addition to the major halls in the US. She has made many chamber music appearances and has recorded for different labels. She frequently appears on juries of international competitions, serves on the board of Young Concert Artists, and is on the faculty of the Manhattan School of Music, New York, teaching flute, chamber and woodwind ensembles. Marya said she was grateful and flattered by the award, and spoke of her "wonderful memories" of the University. "It is to the next generation that I owe all I have been given — that is the responsibility of the artist-citizen."

IAN D MCKINNON QSO

JP BCom [VICTORIA], DipEd 1978

Pro-Chancellor of Victoria University and a Wellington City Councillor, Ian McKinnon has a fine record of educational leadership and public service spanning 35 years. He began his teaching career at King's College. He taught at Eton College two years from 1978, subsequently returning there in 1988 as Lower Master, the equivalent of deputy headmaster. He was headmaster of Wanganui Collegiate School from 1980 to 1988 and of Scots College from 1992 to 2002. He was President of the Association of Heads of Independent Schools from 1998 to 2000 and served on the executive of the Independent Schools' Council. Since 2002, Ian has practised as an education consultant providing services to state, integrated and independent schools in a number of areas. Last year, he was appointed Chairman of the Correspondence School and, until its merger with Victoria University of Wellington, was Chairman of the Council of the Wellington College of Education. In addition to being a Trustee of the New Zealand Educational Scholarship Trust [NZEST], Ian is a member of one of the scholarship selection panels administered by the New Zealand Vice-Chancellors' Committee. He was made a Freeman of the City of London in 1992.



Mr McKinnon said he was pleased that the University had acknowledged not just education "but an old-fashioned teacher like me".

NUMBER CRUNCHER

One of the inaugural Hood Fellows tells **PETER CALDER** that he had a bad habit of watching TV while he did his homework. Look where it got him.



+ MULTI-TASKER: Professor Marston Conder is one of four inaugural Hood Fellows.

PICTURE: GODFREY BOEHNIKE

When Professor Marston Conder was working in the upper levels of university administration, he would sit in management meetings covering pieces of paper with the arcane symbols of complicated mathematical equations. To the uninitiated observer, he may have appeared to be inscribing the doodles produced by a mind that was miles away. But when he was called on to contribute to discussion, it was always plain that he had been listening.

Conder smiles when reminded of the “doodling” and recalls with great amusement colleagues who, unlike him, let their attention wander and were caught off guard.

“I wasn’t doodling,” he says, mock defensively. “I was doing research. It’s called multi-tasking.”

Later he will admit that he has “a bad habit of doing that. It comes from doing my homework and watching TV at the same time when I was at school. But I was listening.”

Conder’s multi-tasking mind will get an even bigger workout over the next 12 months when he uses a Hood Fellowship to visit some of the world’s top mathematicians.

The director of the New Zealand Institute of Mathematics and its Applications (NZIMA), a Centre of Research Excellence at The University of Auckland, he is one of four distinguished academics to receive the inaugural fellowships. They are awarded by the Hood Fund, a \$5.27 million endowment supported by the Lion

Foundation, the Woolf Fisher Trust, Mr Douglas Myers and other prominent business leaders both in Auckland and overseas.

Professor Conder has made fundamental contributions to mathematical research in several related areas, but particularly in two branches of pure mathematics called group theory and combinatorics.

Mathematics – the subject which, for many, evokes chilling memories of schooldays – can be daunting, Conder admits, but he observes that it is becoming increasingly important not only as a helpful tool in many academic areas but as a discipline in its own right.

“You can use mathematics as a language to understand physics or biology or psychology or economics,” he says. “But mathematicians invent new ways to solve problems, and sometimes the machinery that gets invented to answer the questions from other disciplines takes on a life of its own, and often has other unexpected applications.

“Prime number theory, for example, can be used to assist with encoding and decoding information – such as that on the strips on smart cards – or sending information electronically in such a way that even if somebody intercepts it, they are not going to be able to decode it.”

The NZIMA was one of the first five Centres of Research Excellence (CoREs) – elite, specially funded research centres established in 2002 – and Conder says it seeks, as its full name suggests, to achieve “a good balance between the fundamental stuff and the applications”.

The institute “provides a lot of resources for mathematical activity that would not otherwise be there”, he explains, by initiatives such as inviting distinguished overseas scholars to visit. Their lectures attract wide interest and lift the profile of the subject – and the institute.

He is aware that many scientists have tended to see mathematics as a handmaiden discipline to other sciences, while mathematicians have

seen their discipline as the driving engine of real science, or as another branch of thought in the same way as the humanities is.

“Both sides have a point,” he says. “In the 50s and 60s an awful lot of mathematics was designed to answer questions in other sciences. Those guys were the backroom boys, answering questions in physics and engineering and so on. Now, suddenly, in biology, for example, everyone’s interested in the genome and medical and social research is now much more evidence-based. Mathematics is much more integral to the research effort, and mathematicians have become essential members of

multidisciplinary research teams.”

The rise in the importance of statistics in almost every discipline has also changed the landscape. “It pervades everything now,” says Conder. “Something like one in every three students does a course in statistics.”

Conder will use the Hood Fellowship to travel to three universities – Oxford, UC Berkeley and the University of Fribourg in Switzerland – where he will advance recent discoveries he has made and discuss future directions of his work in the area of mathematical research, to do with maximum symmetry of networks, surfaces and manifolds, where he is making major contributions. **1**

HOOD FUND FELLOWSHIPS CONQUER THE TYRANNY OF DISTANCE

Among the many legacies of former Vice-Chancellor, Dr John Hood, who is now the VC at Oxford, is the fund that bears his name. The programme funds both visiting and travelling fellowships: visiting academics can challenge and inspire the research and thinking of their peers at The University of Auckland while travelling fellows can undertake research projects at prestigious international institutions. The fund also supports annual public lectures by outstanding academics and the University’s international student exchange programme.



+ TRAVELLING:
Distinguished
Professor Peter
Gluckman.



+ VISITING:
Dr Ngaire Woods

This year’s visiting fellows are world-renowned historian Professor John Pocock, Professor Emeritus at The Johns Hopkins University in Baltimore, Maryland and Dr Ngaire Woods, Fellow in Politics and International Relations and Director of the Global Economic Governance Programme at University College, Oxford. Both were educated in New Zealand.

Dr Pocock was Head of the Department of Political Science at the University of Canterbury before going to the US in the mid-60s. In July he will deliver a keynote lecture at the fourth British World Conference to be held at The University of Auckland and, at a public lecture, will provide a fresh view on New Zealand’s past.

Dr Woods, a distinguished graduate of The University of Auckland’s Faculty of Law, is one of the world’s leading experts and commentators on global economic affairs. A lead consultant to the United Nations, she chaired a high-level working group on institutional reform in the international financial system.

During her visit in March and April she gave public lectures analysing the successes and failures of the International Monetary Fund and the World Bank.

The other travelling fellowship in this first round was awarded to Distinguished Professor Peter Gluckman, the Director of the Liggins Institute and the National Research Centre for Growth and Development, which is another of the Centres of Research Excellence also at Auckland. Professor Gluckman will test the design of his empirical experimental work with international leaders in his field and explore the potential of new technologies. **1**

RISK ASSESSMENT

JOANNA WANE talks to an epidemiologist who has designed a tool to help GPs predict their patients' futures so they can manage their health care better.



+ REDUCING RISK: Professor Rod Jackson and Dr Sue Wells are taking the guesswork out of patient management.

PHOTO: GEOFF DALE

In the early 1990s, University of Auckland epidemiologist Professor Rod Jackson developed a colour-coded chart to help doctors assess a patient's risk of having a heart attack or stroke within the next five years.

The chart enabled complex cross-checks of multiple risk factors, yet it was simple to decipher. It was a huge success and adopted by medical practitioners around the world but in busy practices, many GPs didn't use it regularly because it

was inconvenient to refer to the chart in the middle of a consultation.

Dr Sue Wells was one who did – and its potential entranced her. Now a senior lecturer in clinical epidemiology, the former GP has joined forces with Jackson to translate the concept into a web-based diagnostic tool as close as a doctor's desktop. The tool, named PREDICT, could revolutionise the management not only of cardiovascular disease but also of other chronic conditions such as cancer,

osteoporosis and mental health disorders.

Developed, with funding from the Health Research Council and the Chisholm Whitney Family Trust, in collaboration with software partner Enigma Publishing, PREDICT is accessed online. It assesses a patient's risk factors for heart disease and diabetes and then recommends a personalised action plan.

In two years of trials by members of ProCare (a primary care organisation), it's been used by more than 130 GPs who have

evaluated more than 12,000 patients, whose records were encrypted to ensure anonymity. A more streamlined second version is being prepared for clinical implementation. Another pilot, aimed at applying PREDICT to decisions made at a hospital level about heart surgery waiting lists, is under way at Auckland Hospital.

Because some cardiac medications are expensive and can have side-effects, PREDICT's ability to tailor treatment to a specific patient profile has broken new ground internationally. Long-term, the potential is even more exciting. A copy of every assessment is recorded to build a national database, which will eventually build a detailed picture of the risk-factor profile of New Zealanders and the effectiveness of various treatment regimes.

"It's a powerful tool," says Jackson, "and the potential to expand it to the management of other chronic conditions is already being investigated."

For practitioners, the beauty of the system is that it will integrate seamlessly with any existing computerised patient-management systems, automatically downloading vital statistics such as age, gender, clinical history, tobacco use and readings of cholesterol and blood pressure. As the name implies, it is also smart enough to think one step ahead. If the patient has diabetes (a major risk factor for cardiovascular disease), an extra box is dropped in requesting more details. A female patient will be asked if she's pregnant (in which case some treatments are not advised). And if there's an indication of metabolic syndrome, a pre-diabetes condition identified by a specific cluster of symptoms, the risk

'IT'S A POWERFUL TOOL AND THE POTENTIAL TO EXPAND IT TO THE MANAGEMENT OF OTHER CHRONIC CONDITIONS IS ALREADY BEING INVESTIGATED.'

assessment is immediately increased by five per cent.

"A patient has a mixture of all kinds of risk factors – this blood pressure level, that cholesterol reading," says Jackson, who heads the Epidemiology and Biostatistics Department on the University's Tamaki Campus. "PREDICT tailors the key messages and guidelines to your individual profile at the moment of care."

Once the online form has been submitted, it takes barely five seconds for a result to pop up on the screen. A patient whose risk of a heart attack or stroke within the next five years is less than five per cent is off the hook – at least for now. Even so, a practitioner will give the patient a personal management plan, such as a "green" prescription for lifestyle changes.

If the risk is assessed at more than five per cent, the strategies will be more intensive and possibly include medication.

Wells, who distilled hundreds of pages of medical guidelines into PREDICT's design, says patients can print out the information and book in with the clinic's practice nurse to make a plan of change. There are also links to relevant websites where they can download, for example, a pamphlet on a cardio-protective diet.

Because the tool works through the Internet, it can be used from anywhere in the world and the results are received instantly. Jackson was in Washington recently and talked to a colleague who had just been put on a statin drug to lower his cholesterol.

"I didn't think that was appropriate so I pulled up PREDICT on his computer," he says. "From across the world we had the equivalent of a consultation and within five seconds we were able to discuss what his risk was and what New Zealand experts would say about his management."

With patients typically forgetting 30 per cent of what they've been told within days of a consultation, the ability to print out a management plan is invaluable, says Dr Tom Marshall, chairman of ProCare Health, who's a big fan of the system.

"It's right there on the desktop so you don't have to be scrambling around looking for papers you know you've filed somewhere," he says. "You can get a risk assessment and show a patient that there's a 20 per cent risk of a heart attack in the next five years, but if they do this and this, they'll reduce the risk. That's pretty persuasive and it's also pretty reassuring for people to know they can do something about it."

1

PRICE BEAT GUARANTEE

Bring us a competitor's airfare
and if it's available,
WE WILL BEAT IT!*

SYDNEY

ONE WAY FROM **\$119***
Airport taxes, insurance, fuel surcharges & other charges are additional.

BANGKOK

FROM **\$769***
Airport taxes, insurance, fuel surcharges & other charges are additional.

LOS ANGELES

FROM **\$1599***
Airport taxes, insurance, fuel surcharges & other charges are additional.

LONDON

FROM **\$1645***
Airport taxes, insurance, fuel surcharges & other charges are additional.

NEW YORK

FROM **\$1669***
Airport taxes, insurance, fuel surcharges & other charges are additional.

MELBOURNE

FROM **\$479***
INCLUDES 2 nights & return airfares per person.
Airport taxes, insurance, fuel surcharges & other charges are additional.

FIJI

FROM **\$539***
INCLUDES 4 nights & return airfares per person.
Airport taxes, insurance, fuel surcharges & other charges are additional.

VALUE+PLUS

Receive a 20% discount off Travel Insurance with any booking*
Special conditions apply.

We have consultants who speak or understand
FRENCH • GERMAN • MALAY • MANDARIN • CANTONESE

*CONDITIONS: Airfares are return (unless stated otherwise) per person ex Auckland in economy class & are subject to availability. Date restrictions apply. Accommodation costs are based on 2 people travelling together sharing a room. Payment is by cash only & may be required at the time of booking on some fares. Special conditions including seasonal surcharges may apply. Seats & sales period are limited, call today.

FLIGHT CENTRE 350 QUEEN STREET

(09) 358 4310



FLIGHT CENTRE





LESSONS FROM THE PAST

A new project at the Business School aims to teach students about the country's long commercial history.

The axiom that those who do not learn from history are condemned to repeat it is sufficiently well-worn to qualify as a cliché. But for staff at The University of Auckland Business School, the students' poor knowledge of commercial history was a call to action.

The school's response is the Business History Project, which takes a multi-pronged approach to recalling and recording the history of local and national business and enterprise.

"Believe it or not, there are business students today who don't know who Robert Muldoon was," says the project's co-director, Paul Gilbert. "Many of our first-year students weren't even born before the 1987 [stock market] crash.

"If students have grown up in a period of unprecedented growth, that forms their paradigm and they behave accordingly. If they don't learn from the mistakes of their predecessors, history will keep repeating itself. This project will ensure that the memory of the past is kept alive for students."

Most companies are too busy doing business in the present to be worried about preserving their past. But



'BELIEVE IT OR NOT, THERE ARE BUSINESS STUDENTS TODAY WHO DON'T KNOW WHO ROBERT MULDOON WAS.'

+ BACK TO THE FUTURE:

Paul Gilberd, left, and Ian Hunter are preserving our links with business history.

PHOTO: GEOFF DALE

internationally, it's a different matter: interest among tertiary institutions is growing rapidly. Business history is a discipline in its own right and a compulsory subject for MBA students at institutions as prestigious as Harvard.

"We're essentially playing a game of catch-up with the rest of the world, both in the teaching of business history and in the dissemination of business history research," says the project's other co-director Dr Ian Hunter. "We want to forge links with New Zealand companies and have our students learn from their histories. It will provide great exposure for the companies and also be extremely useful for students to learn material that's relevant to them and to their careers. At the same time we'll gain the opportunity to replenish the empty cupboard of New Zealand business history."

The project, the most extensive of its kind undertaken here, employs four business historians and four researchers. Over the next three years it will create a comprehensive portrait of the history of local business in half a dozen different ways.

Artefacts, images, business profiles and interactive audio visual display kiosks will be located throughout the seven teaching and learning floors of the new Business School building; leading business scholars from both New Zealand and overseas have worked together to produce a book, *Auckland: City of Enterprise*, which will be published at the end of the year; business history conferences will become regular events, raising the University's profile as a centre of business history research and teaching. The project also includes a heritage trail.

Meanwhile, an oral history archive will collect and present a series of in-depth interviews with leading Auckland business personalities to be housed in the new Business School. This archive will provide a window into experiences like those of Percy Bookman, who started a business in 1945.

To help support his family during the Depression, Bookman left school at 13 to begin work as a message boy in a clothing factory. After moving to Auckland at the end of World War II, he decided to start his own clothing business. His initial capital stretched only to the material for a single garment, but he sewed it into a suit, at home in the evenings, and took it in to town to sell it. He spent the profit on material for two garments.

At the end of six months he employed his first assistant. Within 12 months, he had his own premises. Eventually, he established a clothing factory of 30 staff, supporting a wholesale operation and retail stores. In the oral history that records his progress, Bookman proudly recounts how he achieved all this without ever applying to the bank for an overdraft.

"You simply can't get this sort of valuable information from a balance sheet or an annual report," says Hunter. "It is opening our eyes to a vital part of New Zealand's history and to ways of doing business that we had lost sight of."

To date, two dozen histories have been recorded on audio or video and Gilberd says that, with sponsorship, the project would like to do "hundreds of them".

Sponsorships will give local companies the opportunity to raise their public profile. Auckland businesses who participate in the history project will be presented with a copy of their own history on CD-ROM. But, Gilberd warns, time is quickly catching up with the witnesses to our business history.

"We have to act quickly," he says. "If we don't, in some cases this knowledge will be lost forever."

0

— SUE REIDY

Alumni of The University of Auckland make waves at home and abroad.

EMILY BARAGWANATH [BA 1999, MA 2001] has been appointed as a Junior Research Fellow at Christ Church, University of Oxford for up to four years. She went to Oxford as a Rhodes Scholar at the start of the Michaelmas (autumn) term of 2001.



For the first three years she was at Magdalen College working towards a DPhil on the narrative techniques of the fifth-century Greek historian Herodotus. At Christ Church, the largest of

Oxford's colleges, she will finish her doctoral research before embarking on a broader research project on mythology in the Greek historians. She will continue to teach undergraduates at several colleges. "This fellowship has given me a marvellous opportunity to continue with my research in the lively classics community of Christ Church," she says. "Further down the track I hope to keep on working in the area of Greek language and literature, in a position combining teaching with research." Emily studied at Epsom Girls' Grammar School and Senior College of New Zealand before enrolling at The University of Auckland. Her father, Justice David Baragwanath (BA, LLB 1964), was also a Rhodes Scholar.

VINCENT CHENG [MPhil 1979] recently took over as the first Chinese chairman of the Hong Kong and Shanghai Banking Corporation. He was previously vice-chairman and chief executive of the HSBC's subsidiary, Hang Seng Bank. Mr Cheng came to Auckland to study economics after graduating with a Bachelor of Social Science degree from the Chinese University of Hong Kong. He has had an outstanding career in banking and government service in Hong Kong and China, holding a wide range of directorships and taking on many public and community responsibilities.



He joined HSBC in 1978, becoming chief economist in 1986. During the 1990s he was a member of the Executive Council (Hong Kong's highest policy-making body) and the Legislative Council, and a Hong Kong Affairs Adviser to the People's Republic of China.

In 2002 The University of Auckland recognised his outstanding achievements

by bestowing on Mr Cheng a Distinguished Alumni Award. Addressing a graduation ceremony at the University last year he expressed pleasure, as a Chinese with a strong affection for New Zealand, at the growing relationship between the two nations. "For those of you who want to go into business, China is a market that you cannot ignore."

JOHN ENGLAND [BA 1954] was awarded an honorary Doctor of Humanities by Silliman University at Dumaguete in the Philippines in September 2004. The degree, equivalent to a DLitt at Auckland, was conferred on behalf of the Association of Christian Universities and Colleges in Asia. Silliman, one of the large general universities in the region which were originally Christian foundations, is academically ranked third in the many scores of Philippine universities.

Calling John a "distinguished scholar of Asian Christian theology" the citation said the award recognised "his singular contribution to the nurturing and dissemination of Asian Christian thinking spanning over three decades of his professional career. As well as his Auckland BA, John holds a Master of Theology gained at the Southeast Asian Graduate School of Theology in 1987. He has held visiting fellowships at many universities including Edinburgh, Cambridge and Otago.

DR MICHAEL JACKSON [MA 1968], a prominent expatriate poet as well as anthropologist, was briefly back in Auckland late last year lecturing and drawing inspiration for his creative writing. After five years in the Institute of Anthropology at the University of Copenhagen, he has recently taken up a professorship at Harvard Divinity School. In Auckland he delivered a public lecture on "Quandaries of belonging: Some home thoughts from abroad" along with a seminar for staff and students in the Anthropology Department. He has published extensively on the Aborigines of Northern Territory and Queensland, and the Kuranko people of Sierra Leone. His most recent books are based on continuing fieldwork in post-war Sierra Leone.



In his academic writing, Michael seeks to

make anthropology speak directly to academic concerns and to reach a wide audience. He has also produced two novels and five books of poetry. His *Latitudes of Exile* was awarded the Commonwealth Poetry Prize in 1976, and *Wall* won the New Zealand Book Award for Poetry in 1981.

Michael says it is important for expatriate writers like himself to return regularly to this country if they want to remain in touch. "I still feel very strongly that my creative writing belongs here."

Even with email it is "hard to get a sense of things from abroad. You really do need to be here to talk to people and sense how controversies are playing out in everyday life."

PROFESSOR MIKE MORWOOD [BA 1973, MA 1974], an archaeologist and Professorial Fellow at the University of New England in Armidale, led the team which discovered the skeleton of a tiny and hitherto unknown species of human — *Homo floresiensis*.

The tiny skeleton, now nicknamed "Hobbit", and fragments from a minimum of seven other individuals, are representative of a population which lived



from at least 95,000 to 12,000 years ago at Lang Boa, a large limestone cave on the island of Flores in East Indonesia. The species stood about a metre tall and had a brain the size

of a grapefruit — about 400cc. It is the smallest known species of hominid with the smallest recorded brain — even smaller than the famed "Lucy", an Australopithecine who lived in East Africa about 3.5 million years ago. The discovery has been heralded as "the most important palaeoanthropological find for 50 years," according to *New Scientist*, "and has radically altered the accepted picture of human evolution."

Mike studied at Auckland under Roger Green, now emeritus professor, and moved across the Tasman to take his doctorate at the Australian National University in Canberra. His special interests are in Australian and Southeast Asian archaeology, and he has recently completed a book, *Visions from the Past*, on the archaeology of Australian Aboriginal art. He has undertaken regional projects in Central Queensland, Cape York Peninsula, the Kimberley and the Soa Basin of Central Flores.



PHIL O'REILLY [BA 1984, MA 1986] is the new chief executive of Business New Zealand. Based in Wellington he heads the organisation that promotes competition, economic growth and higher living standards through business success. Business New Zealand represents 14,500 employers as well as 56 national business organisations, and advocates for business on a number of international bodies.

Phil, whose degrees were in English and history, started out as an industrial advocate for the Auckland Employers' Association. For 10 years he was executive director of the



Newspaper Publishers Association, and also served as Chairman of the NZ Advertising Standards Authority. From 2000 to 2004 he was in charge of employment policy and communications at Westpac Bank in Sydney.

He says the challenge of promoting economic growth in the interests of higher New Zealand living standards attracted him back from Australia.

"I'd like to see Kiwis' pay-packets surpassing those in Australia," he says. "Working with outstanding New Zealand companies in the interests of sustained and sustainable growth is a brilliant opportunity."

PROFESSOR DEO PRASAD [BArch 1979] won the New South Wales Government's Green Globe Award for 2004 for "showing leadership and commitment in promoting renewable energy supply".

"A tireless champion of solar power as a legitimate alternative, combined with energy-efficient building" was the plaudit bestowed on him by the NSW Minister for Energy and Utilities, Frank Sartor.



Deo has been director of the Centre for a Sustainable Built Environment at the University of New South Wales (SOLARCH) for the past 15 years. The centre is the longest-serving of its kind in Australia.

He has a long-standing international reputation for research, education, training and consulting in his field. Deo has been involved in milestone sustainable building projects including Australia's first solar village in Bonnyrigg, the Sydney Olympics complex, and the Kogarah apartment development which uses the photovoltaic process to convert sunlight into energy.

In the recent past he has received a Federal Government energy innovation award for "outstanding achievement in

innovative research and development leading to the efficient use of energy".

ROBYN RESTIEAUX [BA 1989, MA 1992], who teaches English at Macleans College in Auckland, received a National Excellence in Teaching Award for 2004.

She was one of two secondary teachers to be honoured in this way. Six finalists were selected nationwide from 460 teachers in four categories (preschool, primary, intermediate and secondary) nominated by students or school parent bodies.

The awards are made by the Australian Scholarships Group, the largest independent provider of educational assistance and support services in Australia and New Zealand.



Robyn's citation said she believes in giving her students "every opportunity to 'grow' in their particular skills areas. [She] sees herself as a guide rather than an authority, and has a good rapport with her students and fellow teachers.

"She tailors her teaching style to her students. The shy students receive gentle patience, the angry ones receive as much praise and responsibility as possible, and the confident ones receive quiet consistent pushing."

Author Tessa Duder, in presenting the award to her, said she was bursting to share her passion for the English language and literature. Robyn says she "loves teaching, particularly teenagers, because they have so many ideas. It's challenging but rewarding."

Her masters degree was in psychology and English. She taught at Hillcrest High School in Hamilton before moving to Macleans four years ago.

KATRINA TROUGHTON [BCom, BSc 1990] is the new managing director of IBM New Zealand, based in Auckland. She is the youngest person and the first woman to hold that position.

Previously she was in Sydney as general manager for IBM's software business across Australia and NZ and, before that, the business unit executive for IBM's data management business across the Asia-Pacific.



She is a long-time member of IBM's diversity council which grapples with issues such as how to foster work-life balance, and how to maintain cultural, gender and age diversity in the company. She enjoys spending time

with her young family, playing tennis and swimming.

"Encouraging and supporting diversity for all our people is one of the most important things I do," she says. "By valuing diversity, we uncover new perspectives, tap different knowledge and experience, and generate innovative ideas, suggestions and methods."

Katrina grew up in Eastbourne and came to university in Auckland from Hutt Valley High School. In her science degree she majored in physiology and pharmacology while economics was her commerce major.

She has a postgraduate diploma in health economics (Tromso University) and a diploma in direct marketing (Direct Marketing Association NZ).

KENNETH WANG [MFA 1989], who entered Parliament last November as a list member for ACT when Donna Awatere Huata's seat became vacant, is New Zealand's first male Chinese MP. He is the party's spokesperson on commerce and small business, and its associate spokesperson on education.

He was born in China into a family with strong Communist Party ties. His father, Minquing Wang, worked as private physician for Mao Zedong's wife while his grandfather, Shinying Wang, was a high-ranking government official and soldier in the Red Army.



Kenneth has lived in New Zealand since the mid-1980s and is a director of BrandWorks, a successful marketing and advertising business. He was a founding member of ACT's Asian chapter.

After studying at the Elam School of Fine Arts, he designed the official poster for the Commonwealth Games in Auckland in 1990. "My study here in New Zealand equipped me with skills I never knew I had," he said in his parliamentary maiden speech, "and for that I am forever grateful." He especially appreciated the expert and willing guidance of Bret de Thier, senior lecturer in design at Elam.

These pages feature graduates who have chalked up significant achievements in academia, their careers or in the community. Suggestions for inclusion are most welcome. Please email them to wrs.williams@auckland.ac.nz



✦ **OUTSIDE LOOKING IN:** Rebecca Miller's research aims to improve the effectiveness of organisations.

PHOTO: GEOFF DALE

WORKING SMARTER

A University of Auckland PhD will help UN agencies find ways to work together better, reports **SUE REIDY**

Noi was just 17 years old when she went from Laos to Thailand. Her boyfriend had told her he would get her a job as a waitress in a friend's restaurant in Bangkok and she was looking forward to the prospect of earning enough money to help her family at home. But once in the Thai capital, she was sold to the owner of a sweatshop and forced to work 16 hours a day for next to no money.

The horror stories that make it into the pages of newspapers are about young women – even girls – who are sold into prostitution. But the problem is much more widespread: men, women and children are tricked or forced into many other settings where they are exploited for the profit of others. They are made to beg, pressed into domestic servitude or forced to work in sweatshops or on fishing boats.

Aid agencies work hard to stop this human trafficking, but University of Auckland student Rebecca Miller was keen to assess the extent to which the organisational culture of the aid agencies hindered their work.

Thus was born the idea for research towards a PhD in Development Studies. Canadian-born Miller says that combating human trafficking is a complex undertaking because it draws on several areas of expertise and requires liaison between different organisations.

“Each partner aid agency brings with it a comparative advantage. For example, the United Nations International Children's Emergency Fund (UNICEF) specialises in the protection and rights of children; the International Organisation for Migration (IOM) deals with the safe return and re-integration of victims; and the United Nations Development Fund for Women (UNIFEM) promotes the relationship between gender, human rights and trafficking.”

Miller says that these and other organisations recognise the need for co-operation and her PhD thesis aims to improve that co-operation. Based on a qualitative research study, it aims to provide insights into the challenges facing a UN multi-agency project designed to

reduce the harm associated with human trafficking in the greater Mekong sub-region – China, Thailand, Cambodia, Laos, Vietnam and Myanmar.

“As my interest in human trafficking and the UN developed, I grew increasingly aware of the difficulties associated with co-operation among – and within – agencies,” she says. “Co-operative strategies have enormous potential, but they also present a number of challenges. One of the main reasons is that the organisational cultures of the different agencies frequently hinder inter-agency co-operation.”

Miller spent 10 months last year in Southeast Asia, conducting dozens of interviews with agency personnel. She hopes her thesis results will improve understanding between agencies working on the same or similar projects, making them more effective together than they might be separately.

“In the end, I hope, this will lead to more effective strategies and practices being designed to combat this problem.” ●